



PRE-CERCLIS SCREENING ASSESSMENT

**Millers Flying Service
Raymondville, Willacy County, TX
TXD 981047574**



REGION VI

**Prepared in cooperation with the
U.S. Environmental Protection Agency**

May 2010

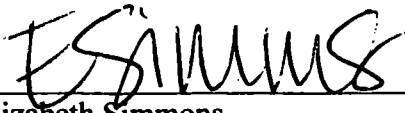


T6B6

PRE-CERCLIS SCREENING ASSESSMENT

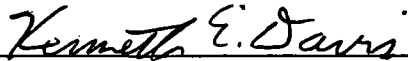
Millers Flying Service
1.3 Miles East of Highway 77 on State Highway 186
Raymondville, Willacy County, TX

SIGNATURE PAGE



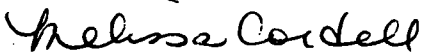
Elizabeth Simmons
Project Manager
Texas Commission on Environmental Quality

5/21/10
Date



Ken Davis
Team Leader
Texas Commission on Environmental Quality

5/21/10
Date



Melissa Cordell
PA/SI Program Manager
Texas Commission on Environmental Quality

5/20/10
Date



Bret Kendrick
Site Assessment Manager
U.S. Environmental Protection Agency

6/23/10
Date

PROJECT CONTACTS

Bret Kendrick
Site Assessment Manager
U.S. Environmental Protection Agency, Region 6
Superfund Division (6SF-TR)
1445 Ross Avenue; Suite 1200
Dallas, Texas 75202
(214) 665-2240

Melissa Cordell
PA/SI Program Manager
Texas Commission on Environmental Quality
State Lead Section, Remediation Division (Mail Code 136)
P.O. Box 13087
Austin, TX 78711-3087
(512) 239-2473

Elizabeth Simmons
Project Manager
Texas Commission on Environmental Quality
State Lead Section, Remediation Division (Mail Code 136)
P.O. Box 13087
Austin, TX 78711-3087
(512) 239-2606

PRE-CERCLIS SCREENING ASSESSMENT

Millers Flying Service

1.3 Miles East of Highway 77 on State Highway 186

Raymondville, Willacy County, TX

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION	1
2.0 SITE INFORMATION	2
2.1 Site location	2
2.2 Site Description.....	3
3.0 POTENTIAL SOURCES AND RELEASES	4
3.1 Source and Release Information	4
4.0 PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST	6
5.0 PATHWAY ASSESSMENT.....	7
5.1 Ground Water Pathway.....	7
5.2 Soil Pathway	7
5.3 Surface Water Pathway.....	8
5.4 Air Pathway	8
6.0 REFERENCES	9

APPENDICES

- Appendix A Site Location Map
- Appendix B Site Features Map
- Appendix C Surface Water Intake Map
- Appendix D Photographic Documentation
- Appendix E Field Notes
- Appendix F Health and Safety Plan

1 INTRODUCTION

The Texas Commission on Environmental Quality (TCEQ), under a grant from the United States Environmental Protection Agency (EPA) Region 6, conducted a Pre-CERCLIS Screening Assessment at the Millers Flying Service site in Raymondville, TX. The goal for completing the Pre-CERCLIS Screening Assessment for the Millers Flying Service site was to determine whether further steps in the site investigation process are required under CERCLA.

Completion of this Pre-CERCLIS Screening Assessment included reviewing existing site information/file material; determining ground water and surface water characteristics; determining surrounding population characteristics; and conducting an on-site and off-site visual inspection to determine if hazardous substances have migrated to surrounding areas. This document includes site information including a description of the site and its location (Section 2), potential sources and releases (Section 3), a completed Pre-CERCLIS screening checklist (Section 4), pathway assessments for ground water, soil, surface water, and air (Section 5), and references (Section 6).

2 SITE INFORMATION

2.1 Location and General Information

Site Name: Millers Flying Service
Alias Site Name(s): MFS
Directions to Site: Traveling on Highway 77 take the Red Fish Bay Road exit (HWY 186) and travel east 1.3 miles; the site is on the south side of State Highway 186.
Latitude: 26.481854°N
Longitude: -97.750066°W

Address: 1.3 miles east of Highway 77 on State Highway 186
City: Raymondville
County: Willacy County
State, Zip Code: Texas, 78580

EPA ID No.: TXD981047574
State ID No.: NA
Other ID No.: TDA001988
Ownership: Private
Owner/Operator: Jack Klosterman
Years of Operation: 1956-1982

Inspection Date: 2/18/2010
Personnel: Elizabeth Simmons, Mary Simpson, Omar Valdez of TCEQ

2.2 Site Description

Millers Flying Service was located approximately 1.3 miles east of Highway 77 on the south side of State Highway (SH) 186. A report done by TCEQ Region 15 after a site visit on November 15, 1999 stated the address was not 1.3 miles, but 4.0 miles from Highway 77 on the south side of SH 186 (Ref. 2, page 1). Based on the site surroundings that were specified in the location maps included in the report, it was determined that the actual site was 1.3 miles from Highway 77. Refer to the site location map for the exact location of each site (Appendix A). Site A is the actual location of the site, 1.3 miles east of Highway 77. Site B is the address from the report which is believed to be incorrect. During the site investigation conducted on February 18, 2010 both locations were investigated and documented (Appendix E).

Millers Flying Service was an aerial pesticide applicator company that operated from 1956 – 1982. During that time, the owner, Mr. Cal Miller, used half of the property for farming, and the other half for the applicator services. The site consisted of a large mixing vat, an airstrip, a water tank and an underground storage tank located west of the water collection tank. The property was six acres in size and the airstrip ran north to south down the middle, cutting the property into two separate three acre sections. The applicator services took place on the west side of the property. The other three acres were used for farming cotton and grain sorghum. Rinsates from the airplanes and containers were placed in the mixing vat and reused. All containers were triple rinsed before taken off site (Ref. 2, pg. 2).

Prior to the site investigation on February 18, 2010, two other site visits were conducted at Millers Flying Service. The first was completed by Engineering Sciences, Inc. on July 30, 1986 and the second on November 15, 1999 by TCEQ Region 15 and Ecology and Environmental, Inc. During the first site visit in 1986, two soil samples were collected from areas of stressed vegetation in a drainage ditch on the north side of the property along SH 186. No contamination was detected, and no further action was recommended (Ref. 2, pg. 3). During the second site visit, four surface soil samples were collected, each from the west side of the property at a depth of 0-6 inches. The samples were analyzed for Target Compound List (TCL) semivolatile organic

compounds, TCL volatile organic compounds, TCL pesticides/PCBs and Target Analyte List (TAL) inorganics including mercury and cyanide. The first three samples were taken between 45 and 105 feet south of SH 186. The fourth was taken approximately 0.2 miles south of SH 186 to serve as the background sample. Of the four samples collected, one of them (MFS01) showed concentrations of DDT and Arsenic to be above the Texas Risk Reduction Program (TRRP) Tier 1 Protective Concentration Levels for Commercial/Industrial land use, for direct exposure to soils (Ref. 2, page 14).

Currently, the land appears to be a wildlife sanctuary/viewing area. There is a short fence between SH 186 and the north side of the property and a small, circular parking area. From the east side of the parking area a concrete walking trail leads to a viewing dock overlooking a pond. The west side of the property is overgrown with native grasses, cacti and shrubs (Appendix D, Site A - Photo. 2).

The property surrounding the site is mostly cultivated farmland. Directly north is the Raymondville Cemetery and west is a power transfer station (Appendix D, Site A - Photograph 1). Aside from that, all bordering properties are used for farming (Appendix E).

3 POTENTIAL SOURCES AND RELEASES

3.1 Source and Release Information

The pesticides used on site included methyl parathion, sprayable Sevin, Atrazine, Malathion, and Lindane (Ref. 3, pg. 4). During the years of operation, Mr. Cal Miller claimed to never have stored any pesticides on site, but the site investigation conducted on July 30, 1986 by Engineering-Science, Inc. observed 15 empty plastic drums and 10 empty rusted 55 gallon drums. Most drums were not labeled, and there were no odors detected from the drums. The area of stressed vegetation previously mentioned along the drainage ditch was located at the northwest corner of the site. The samples taken from this area yielded no evidence of contamination, but a strong pesticide odor was documented (Ref. 3, pgs 3 - 4).

The site investigation on November 15, 1999 showed no signs of activity involving the applicator service. An abandoned water collection tank remained on the west side of the property and the old airstrip was being used as a dirt road. There were no signs of stressed vegetation, empty drums or pesticide odors observed (Ref. 2, pg. 2).

The site investigation done by TCEQ personnel on February 18, 2010 showed no signs of an aerial applicator company. The airstrip/dirt road was not observed nor were any drums or empty containers of any kind. The location appeared to have gone back to native grasses and cacti except for the east side of the property which is now an area for viewing birds and other native animals (Appendix E).

4 PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST

Complete the following checklist. If "yes" is marked, please explain below.

	Yes	No
1. Does the site already appear in CERCLIS?	X	
2. Are there potential waste sources at the site?		X
3. Is a release of hazardous substances observed or strongly suspected and are there receptors in the area that may be affected? If yes, site may require immediate attention.	X	
4. Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?		X
5. Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use?		X
6. Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)?		X
7. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?		X
8. Is there sufficient documentation that clearly demonstrates that no release has occurred or could have occurred that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, EPA approved risk assessment completed)? Provide reference(s).		X

Please provide an explanation below for each question answered with a "YES."

Question 1: "YES"

The site appears in CERCLIS.

Question 3: "YES"

There was a documented release based on the samples collected during the 1999 site visit. One of the four samples (MFS01) showed elevated levels of DDT and Arsenic (Ref. 2, pg. 14). The closest residence is approximately 900 feet from the site.

5 PATHWAY ASSESSMENT

The potential pathways for human and environmental receptors (targets) evaluated for this site screening include air, soil, surface water, and groundwater.

5.1 Ground Water Pathway

Willacy County is served by the Gulf Coast aquifer with a relatively high water table of 15 – 27.5 feet. Little of this groundwater is suitable for prolonged irrigation due to either high alkalinity, salinity or both. There are no wells on site or within 2 miles in any direction of the site entrance. The nearest irrigation well is approximately 2.7 miles east of the site and the closest drinking water well is 2.5 miles northwest of the site (Ref. 7).

The public water supply is the City of Raymondville which serves drinking water to the entire population of 9,733. It is located 1.5 miles west of the site in downtown Raymondville. The water sources for the public water supply are the Monte Alto Reservoir and the Rio Grande River (Ref. 2, pg. 8)

5.2 Soil Pathway

No signs of stressed vegetation or discolored soil appear at or around the site. The site is in a rural area that is primarily used for farming. There are no residential homes, churches, daycares

or commercial businesses within 200 feet of the site. The nearest residence is approximately 900 feet west on the north side of SH 186 and sits back from the highway approximately 200 feet (Appendix B, pg. 1).

5.3 Surface Water Pathway

The site is located in a topographically flat area (Ref. 6). There is a small pond on the east side of the property in a depressed area of land that water appears to flow to. There is a drainage ditch located on the north side of the property along SH 186 which runs east/west. The site is in a high risk flood zone due to the high groundwater table, its proximity to the coast, and lack of proper outlets for drainage (Ref. 5, pg. 3). The nearest surface water intake is the City of Raymondville (PWS 2450001) 2.4 miles away (Appendix C). The nearest surface water body is Red Fish Bay which is approximately 31.2 miles east on SH 186. It is part of the Laguna Madre Bay, extending from Corpus Christi to Port Isabel (Ref. 4, pg. 2).

5.4 Air Pathway

No air pathway targets were identified during the site investigation on November 15, 1999 (Ref. 2, pg. 4). During the site investigation on July 30, 1986, however, Annette Ponds of Engineering – Sciences, Inc. documented a strong pesticide odor in an area of stressed vegetation near the drainage ditch in the northwest corner of the site (Ref. 3, pg. 4). TCEQ personnel did not identify any air pathway targets during the site investigation on February 18, 2010 (Appendix E).

6 REFERENCES

1. United States Environmental Protection Agency. *Improving Site Assessment: Pre – CERCLIS Screening Assessments*. 7 pages.
2. Texas Commission on Environmental Quality. *Current Site Status and Hazardous Substance Determination*. April 14, 2000. 29 pages.
3. Environmental Protection Agency. *Potential Hazardous Waste Site Identification and Preliminary Assessment*. April 11, 1985. 4 pages.
4. Texas Commission on Environmental Quality. "Atlas of Texas Surface Waters – Bays and Estuaries (24) and Gulf of Mexico (25)". 2 pages. Access Date: March 10, 2010
http://www.tceq.state.tx.us/comm_exec/forms_pubs/pubs/gi/gi-316/gi-316_basin24.html
5. Texas A&M University. *Update of Estimated Agricultural Benefits Attributable to Drainage And Flood Control in Willacy County, Texas*. 2006. 31 pages. Access Date: March 10, 2010.
<http://repository.tamu.edu/bitstream/handle/1969.1/6084/tr294.pdf?sequence=1>
6. United States Geologic Survey. 1 page. Access Date: March 8, 2010
<http://www.usgs.gov/>
7. Texas Water Development Board. "Water Information Integration and Dissemination System." 1 page. Access Date: March 8, 2010.
<http://www.twdb.state.tx.us/home/index.asp>

REFERENCE 1



Improving Site Assessment: Pre-CERCLIS Screening Assessments

Office of Emergency and Remedial Response
Site Assessment Team

Quick Reference Guidance Series

ABSTRACT

Pre-CERCLIS screening is a review of information on potential Superfund sites to determine whether the site should be entered into EPA's Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS). Pre-CERCLIS screening is an initial low-cost look at potential sites to ensure that uncontaminated sites or sites ineligible under CERCLA are not unnecessarily entered into CERCLIS for further Superfund-financed assessment activities. This guidance document establishes minimum requirements for conducting pre-CERCLIS screening assessments and supplements existing pre-CERCLIS screening guidance.

BACKGROUND

All sites brought to the Agency's attention should be screened before we enter them into CERCLIS (OERR Directive # 9200.4-05, *Pre-CERCLIS Screening Guidance*, September 30, 1996)¹. Pre-CERCLIS screening is the process of reviewing data on a potential site to determine whether it should be entered into CERCLIS for further evaluation. EPA is required to further assess risks to human health and the environment posed by sites entered into CERCLIS and to determine whether Federal response action (e.g., removal action, remedial action, oversight) is warranted. Pre-CERCLIS screening minimizes the number of sites unnecessarily entered into CERCLIS by providing a cost efficient mechanism for screening sites.

The pre-CERCLIS screening process begins when you are informed of a new site by a phone call or referral from State, Tribal or other Federal agency staff. The designated site investigator (regional, State, or Tribal staff or contractor) will complete the attached *Pre-CERCLIS Screening Assessment Checklist/Decision Form* (Attachment A), or equivalent documentation, to provide site information on deciding whether entry of the site into CERCLIS is warranted. If equivalent documentation is used, it must address the information requested in Attachment A. Only enter sites that

require further Superfund assessment/response into CERCLIS. Information about sites deemed inappropriate for CERCLIS entry should be maintained for possible future reference and retrieval to avoid duplication of effort.

WHY USE PRE-CERCLIS SCREENING?

Pre-CERCLIS screening prevents unnecessary entry of sites into CERCLIS (e.g., uncontaminated sites, sites ineligible under CERCLA, or sites not requiring Federal Superfund response actions). Federal Agencies and States conducting CERCLA site assessments should consult with the EPA Regional Office prior to initiating Pre-CERCLIS screening to ensure that sufficient data will be collected to make an appropriate decision about the site.

HOW WILL PRE-CERCLIS SCREENING BE IMPLEMENTED?

The standard procedures for implementing pre-CERCLIS screening activities are presented below.

Who Will Fund Pre-CERCLIS Activities?

EPA Headquarters provides funding to EPA Regions for Superfund site assessment activities through an Advice of Allowance (AOA) as described in the Superfund Program Implementation Manual. These funds may be used to conduct pre-CERCLIS screening work; however, Regions need to balance the amount of funds used for pre-CERCLIS screenings with funding needs for other site assessment activities.

You may implement pre-CERCLIS screening activities through three primary mechanisms:

- (1) Funding States and Tribes through site or multi-site assessment cooperative agreements;
- (2) Funding Federal contractors (e.g., through START contracts); and
- (3) Using EPA regional staff.

EPA regions should specify pre-CERCLIS screening activities in the statements of work associated with site/multi-site assessment cooperative agreements and with Federal contract work assignments as appropriate.

What Are Regional Staff Responsibilities?

Regional site assessment staff are responsible for reviewing screening reports for completeness and for ensuring that appropriate sites are entered into CERCLIS. A completed *Pre-CERCLIS Screening Assessment Checklist/Decision Form* (see Attachment A) or equivalent documentation as referenced above can serve as a final report for a site. The decision to enter or not enter a site into CERCLIS should be based on current information. If new information becomes available on a site that was not entered, you may reconsider the decision.

Site investigators should collect enough data to complete the *Pre-CERCLIS Screening Assessment Checklist/Decision Form* (see Attachment A). From the time of initial notification of a potential site, the site investigator should review the information to evaluate the need for additional assessment and entry into CERCLIS. See specific information requirements identified in the checklist. If more site information is available, the site investigator should examine the information at this time. The information collection/screening process is normally limited to one or two days. If the site is placed in CERCLIS, EPA will use the gathered information in the next step of the site evaluation (e.g., Preliminary Assessment (PA)², Abbreviated Preliminary Assessment (APA)³, or Combined PA/SI⁴).

What Are The Screening Criteria?

To make a CERCLIS entry decision, site investigators need to gather enough data to address the screening criteria below.

These criteria are primarily based on OERR Directive # 9200.4-05.

A site should not be entered into CERCLIS if:

- The site is currently in CERCLIS, or has been removed from CERCLIS and no new data warrant CERCLIS entry. Determine whether the site has previously been evaluated under the Federal Superfund Program to avoid entering a duplicate site record into CERCLIS. Check CERCLIS and archive data for previous entries of a site using site name, location, and site identification number data.

Note: Sites already in CERCLIS with no work started may warrant CERCLIS screening as part of an APA. (See the guidance document titled, *Improving Site Assessment: Abbreviated Preliminary Assessments*³ for more information on conducting APAs.)

- The site and some contaminants are subject to certain limitations based on definitions in CERCLA. This includes cases where the release is:
 - (1) Of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found;
 - (2) From products that are part of the structure of, and result in exposure within, residential buildings or business or community structures; or
 - (3) Into public or private drinking water supplies due to deterioration of the system through ordinary use.
- A State or Tribal remediation program is involved in response at a site that is in the process of a final clean-up (e.g., a State Superfund program, State voluntary clean-up program, and State or local Brownfields programs).

During the screening process, a file search of other Agency programs eliminates sites where other programs are actively involved. Based on the search of the geographical location of the site and the site name, conduct the search using current databases or telephone calls to staff of other potentially involved programs. You, in consultation with State and Tribal program representatives, are responsible for determining whether another program is actively involved with the site.

When another program with sufficient investigation, enforcement, and remediation resources is actively

involved with a site, postpone a decision on CERCLIS entry until all actions have been completed. EPA is responsible for determining if the actions are sufficient and will then determine whether any further Superfund involvement is warranted.

- The hazardous substance release at the site is regulated under a statutory exclusion (e.g., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or covered by the Nuclear Regulatory Commission (NRC), and Uranium Mill Tailings Radiation Control Act (UMTRCA), see CERCLA Section 101(22).

If entry into CERCLIS is not warranted due to statutory exclusion, the site data should be sent to the appropriate Federal and State/Tribal program for possible future follow-up. You should confirm notification of sites referred to other programs.

- The hazardous substance release at the site is deferred by policy considerations (e.g., RCRA Corrective Action). Refer to the *Regional QC Guidance for NPL Candidate Sites*⁵ for more examples.

The site investigator should, at a minimum, search other current EPA data sets using site identification data (name and location) to determine whether the site is already being addressed by other authorities.

The NPL/RCRA deferral policy states that sites should not be placed on the NPL if they can be addressed under RCRA Subtitle C corrective action authorities. However, according to the NPL/RCRA policies published June 10, 1986 (51 FR 21057), June 24, 1988 (53 FR 23978), and October 4, 1989 (54 FR 41000), facilities that are subject to RCRA Subtitle C may be listed on the NPL when corrective action is unlikely to succeed or occur promptly, as in the following situations: (1) inability to finance, (2) unwillingness/loss of authorization to operate, (3) unwillingness/case-by-case determination, (4) converters, non- or late filers, (5) pre-HSWA (Hazardous and Solid Waste Amendments) permittees, and (6) when not all of the release from the facility is covered by RCRA corrective action.

- Site data are insufficient to determine CERCLIS entry (i.e., based on potentially unreliable sources or with no information to support the presence of hazardous substances or CERCLA-eligible pollutants and contaminants).

If you are presented with incomplete pre-CERCLIS screening information or with what appears to be unreliable data for a site, you should identify the data deficiencies and forward these data needs to the site investigator for further data collection. Refer to the attached pre-CERCLIS screening checklist for minimum required site information. When it is not feasible to obtain all the information to complete the checklist, use professional judgement when deciding to place a site in CERCLIS.

- There is sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above applicable or relevant and appropriate requirements (ARARs), completed removal action of all sources and releases, documentation showing that no hazardous substance releases have occurred, or a completed EPA approved risk assessment showing no risk).

You should communicate CERCLIS site entry decisions to States and Tribes on a regular basis.

Does Pre-CERCLIS Screening Apply To Citizen-Petitioned Sites?

Citizen-petitioned sites are eligible for pre-CERCLIS screening assessments and must meet the same criteria. According to Section 105(d) of CERCLA, EPA must perform a PA or provide an explanation for why the PA was not appropriate within 12 months of receiving the petition. The *Pre-CERCLIS Screening Assessment Checklist/Decision Form* (see Attachment A) or equivalent documentation may be used to support the decision to enter the site into CERCLIS and perform a PA or to explain to the petitioner why a PA is not appropriate.

How Will Information be Managed?

See the Superfund Program Implementation Manual for procedures on managing pre-CERCLIS screening information in the Superfund data system.

REFERENCES

1. U.S. Environmental Protection Agency, September 1996. *Pre-CERCLIS Screening Guidance*. Office of Solid Waste and Emergency Response. Directive # 9200.4-05.
2. U.S. Environmental Protection Agency, September 1991. *Guidance for Performing Preliminary Assessments Under CERCLA*. Office of Solid Waste and Emergency Response. Publication 9345.0-01A.

3. U.S. Environmental Protection Agency, October 1999. Quick Reference Guidance Series - *Improving Site Assessment: Abbreviated Preliminary Assessments*. Publication OSWER 9375.2-09FS.
4. U.S. Environmental Protection Agency, October 1999. Quick Reference Guidance Series - *Improving Site Assessment: Combined PA/SI Assessments*. Publication OSWER 9375.2-10FS.
5. U.S. Environmental Protection Agency, December 1991. *Regional Quality Control Guidance for NPL Candidate Sites*. Office of Solid Waste and Emergency Response. Publication 9345.1-08.

FOR MORE INFORMATION

For more information on pre-CERCLIS screening activities, please contact Randy Hippen at EPA Headquarters, phone (703) 603-8829 or e-mail at hippen.randy@epa.gov.

ATTACHMENT A

**PRE-CERCLIS SCREENING ASSESSMENT
CHECKLIST/DECISION FORM**

PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

This checklist can assist the site investigator during the Pre-CERCLIS screening. It will be used to determine whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer:

(Name/Title)

(Date)

(Address)

(Phone)

(E-Mail Address)

Site Name:

Previous Names (if any):

Site Location:

(Street)

(City)

(ST)

(Zip)

Latitude:

Longitude:

Complete the following checklist. If "yes" is marked, please explain below.

	YES	NO
1. Does the site already appear in CERCLIS?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures?	<input type="checkbox"/>	<input type="checkbox"/>
3. Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use?	<input type="checkbox"/>	<input type="checkbox"/>
5. Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)?	<input type="checkbox"/>	<input type="checkbox"/>
6. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?	<input type="checkbox"/>	<input type="checkbox"/>
7. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)?	<input type="checkbox"/>	<input type="checkbox"/>
8. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, EPA approved risk assessment completed)?	<input type="checkbox"/>	<input type="checkbox"/>

Please explain all "yes" answer(s), attach additional sheets if necessary:

Site Determination:

- ☐ Enter the site into CERCLIS. Further assessment is recommended (explain below).
- ☐ The site is not recommended for placement into CERCLIS (explain below).

DECISION/DISCUSSION/RATIONALE:

Regional EPA Reviewer:

Print Name/Signature

Date

State Agency/Tribe:

Print Name/Signature

Date

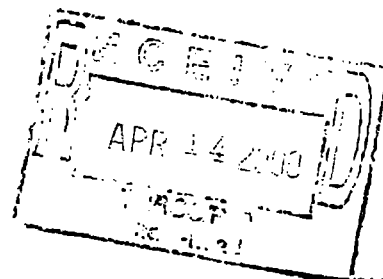
REFERENCE 2

Current Site Status and Hazardous Substance Determination

1.0 GENERAL SITE INFORMATION

SITE NAME: Miller Flying Service (MFS)			
ADDRESS: 4 miles east of Raymondville on SH 186 (on the south side of SH 186)			
CITY: Raymondville	ZIP: 78580	COUNTY: Willacy	REGION: 15
PHYSICAL LOCATION (directions to site): 4 miles east of Raymondville on SH 186 (on the south side of SH 186)			
TYPE OF OWNERSHIP <input type="checkbox"/> Municipal <input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Indian Nation <input type="checkbox"/> State <input type="checkbox"/> County <input type="checkbox"/> Other _____ <input type="checkbox"/> Unknown			
SITE STATUS: <input type="checkbox"/> Occupied by _____ _____		YEARS OF OPERATION <input type="checkbox"/> Unknown <u>1956</u> / <u>1982</u> Begin End	
<input checked="" type="checkbox"/> Vacant: Accessible to Public Y/N <u>Y</u>			
EPA ID # <u>TXD981047574</u> State SWR # <u>Unknown</u> Other # <u>TDA 001988</u>			
Site Owner (if available): Jack Klosterman (current owner)			
Site Operator (if available): Cal Miller (former operator)			
Site Representatives Interviewed/Contacted			
Name	Phone	Relationship To Site	
Mrs. Cal Miller	(956) 689-5088	wife of former operator	
Jack Klosterman	(956) 689-3078	current owner	
Access Gained By: <input checked="" type="checkbox"/> Verbal Consent <input type="checkbox"/> Written Consent <input type="checkbox"/> TNRCC Authorization _____			

02 001



Description of current site activities
(e.g., manufacturing plant, abandoned refinery, etc.)

The property that MFS formerly occupied is presently cultivated farm land. A dirt road bisects an agricultural field on the east side and an area of vacant land is located on the west side. According to Mr. Jack Klosterman, the current property owner, the MFS operations took place on the west side of the dirt road. Mr. Klosterman leases out the agricultural field on the east side for farming cotton and grain sorgum. Mr. Klosterman stated that the agricultural field is periodically sprayed with methyl parathion and atrazine. There are no buildings or structures located on the site. There is one abandoned metal water collection tank located on the site. According to file information, an underground fuel storage tank (UST) was located west of the water collection tank. It is not known whether the UST still remains on site or if it has been removed. The site is well vegetated with grasses and trees. There was no evidence of stained soil, stressed vegetation, or disposal pits on the site. There are no pesticide applicator activities presently being conducted on the site.

Contractor Personnel conducting on-site assessment Deena De Palma Ecology & Environment Inc.; Loren Williams, Ecology & Environment Inc.

Date/Time of Site Visit 11/15/99 / 1130

Weather conditions Clear, low 80's

2.0 SITE SCREENING INFORMATION

Date of TNRCC Eligibility Screen	08-05-94	TNRCC Personnel	Allan Seils
Summarize all TNRCC Eligibility Findings	The site was an aerial pesticide applicator facility which was approximately six acres in size. Former structures which were located on the site and utilized as part of the operations included a water tank, a mixing vat, and an underground fuel storage tank. Chemicals were mixed in one central area on site. Rinsates from the planes and containers was placed in a mixing vat and reused. All containers were triple rinsed and hauled off the site. It was determined that there was insufficient data for screening purposes and the site was referred to field ops for a sampling inspection.		

02 002

<p>File Review: Provide pertinent site background, past waste management practices, and regulatory status from the most recent on-site investigation providing dates.</p>	<p>The Miller Flying Service was a pesticide application business which operated from 1956 until 1982. The site consisted of a mixing vat, a water tank, and an underground storage tank. Chemicals were mixed in one central area on the site. Rinsates from planes and containers were placed in a mixing vat and later reused. All containers were triple rinsed and hauled off the site to the Raymondville City Dump. City water was used for mixing chemicals.</p> <p>An EPA RCRA 3012 Preliminary Assessment (PA) was conducted on April 11, 1985. The PA report concluded that there was insufficient information concerning pesticide handling procedures and waste disposal practices. A Site Inspection (SI) was recommended under the RCRA 3012 program.</p> <p>An EPA RCRA 3012 SI was conducted on July 30, 1986. Two soil samples were collected from areas of stressed vegetation in a drainage ditch along SH 186. No contamination was detected in the soil samples and no further action was recommended for the site.</p>
--	---

3.0 DESCRIPTION OF HAZARDOUS CONDITIONS, INCIDENTS AND RANK (Seriousness of Situation)

A. HAZARDOUS CONDITIONS

- 1.(Y/N) N Is there a potential threat of Fire and/or Explosion on-site (i.e., unstable hazardous materials stored on-site, reactive materials disposed of together, former military site with unexploded ordinance)? If yes, describe:
- 2.(Y/N) N Is there a potential threat of Direct Contact with Hazardous Substances (i.e., unrestricted public access to exposed hazardous substances, runoff carries hazardous substances to surface water bodies, hazardous substances may have migrated to residential properties)? If yes, describe :
3. (Y/N) N Is there a potential threat of a Continuous Release of Hazardous Substances (i.e., sources are poorly contained possible threatening ground water, surface impoundments with inadequate diking near a surface water body, contamination of sewers or storm drains, lack of cover to prevent air release)? If yes, describe:
4. (Y/N) N Is there a potential threat of Drinking Water Contamination (i.e., threatened water intakes, suspected release to ground water where private residences rely on shallow ground water for drinking, underground storage tanks near public supply wells, private well users have reported foul-smelling and or tasting water)? If yes, describe:

5. (Y/N) N Do on-site conditions warrant consideration for stabilization or immediate removal actions (i.e., site security, leaking containers, waste drums, or waste piles, contaminated soils on-site)? If yes, describe:

6. (Y/N) Y Is there known, or observed evidence of human presence on the site (i.e., fishing, biking, footprints, tire tracks, vandalism, ground fires, etc.)? If yes, describe: There is an agricultural field located east of the area of former operations which is currently farmed. At the time of the November 15, 1999 site reconnaissance, two tractors were observed plowing the field.

B. Rank

- ☒ 1 **Low Potential Hazard** - No waste source(s) identified and/or limited or no targets identified.
- ☐ 2 **Low to Moderate Potential Hazard** - May have a waste source(s) and/or limited or no targets identified.
- ☐ 3 **Moderate Potential Hazard** - Potential waste source(s), potential targets are present in the area but no release is suspected.
- ☐ 4 **Moderate to High Potential Hazard** - Potential waste source(s) identified, a release may be suspected and potential targets are present in the area.
- ☐ 5 **High Potential Hazard** - Potential waste source(s) identified, a release is strongly suspected or observed, targets are present in the area and may be impacted. Sites in this category are believed to require immediate attention by TNRCC.
- ☐ 6 **Other** - Sites that for various reasons, do not fit into one of the above scoring criteria. An explanation is attached.

4.0 HAZARD DESCRIPTION (e.g., details on sources, contaminants, historical discharges, waste management and chemical use, threat to public and/or environment)

Chemicals used on site included Methyl Parathion, Ethyl Parathion, Sevin, and DDT (quantities unknown). No sources other than potentially contaminated soil were identified during the investigation of 11-15-99.

5.0 SITE FEATURES

Potential Waste Sources:

<input type="checkbox"/>	Ponds, Lagoons, Surface Impoundments	<input type="checkbox"/>	Drums
<input checked="" type="checkbox"/>	Contaminated Soil	<input type="checkbox"/>	Pits
<input type="checkbox"/>	Transformers	<input type="checkbox"/>	Landfills
<input type="checkbox"/>	Waste Piles	<input type="checkbox"/>	No Sources Identified
<input type="checkbox"/>	Storage Tanks (above & below)	<input type="checkbox"/>	Other

Describe sources and releases
(e.g., #drums, size of impoundment, leaking drums, ruptured tank, containment)

☐ Adequate (secure) ☒ Moderate (unfenced) ☐ Inadequate (poor) ☐ Insecure
(unsound, dangerous)

The potential source at this site is contaminated soil. The source area has no containment features.

Evidence of migration from source area, description of diking, liners, barriers, engineered covers, run-on or runoff control systems, etc. No evidence of hazardous substance migration

Estimate the percentage of the sites surface that is

☒ Exposed soil 10% ☐ Covered by buildings ☐ Covered by pavement ☐
☒ Covered by vegetation 90% ☐ Covered by water ☐

List the presence (or absence) and type of plants observed on-site. If known, estimate percentages of different vegetative types (i.e., tree canopy, shrubs, grass, ground cover, weeds, etc.)

The eastern portion of the property is a cultivated agricultural field. The western portion is occupied by native grasses and weeds.

Describe any evidence or observation of animal species while on-site.

Insects and birds were observed. No livestock are present on site.

PART IV - SAMPLES/FIELD SCREENING INFORMATION

02 006

Describe sources and justify sample collection methods and locations.

Samples were submitted to an accredited laboratory and were analyzed for Target Compound List (TCL) semivolatile organic compounds using EPA Method No. 8270C, TCL volatile organic compounds using EPA Method Nos. 5035/8260B, TCL pesticides/PCBs using EPA Method Nos. 8081A/8082, and Target Analyte List (TAL) inorganics, including mercury and cyanide using EPA Method Nos. 6010B/7471A/9010B.

The submission of additional samples for organophosphorous pesticide analysis using EPA Method No. 8141A, herbicide analysis using EPA Method No. 8151A, and carbamate analysis using EPA Method No. 8318 was approved by the TNRCC prior to sampling due to file information indicating their possible presence.

Contaminated soil was the only potential source identified. Three surface soil samples (0 - 6 inches) were collected on the west side of the dirt road around the former area where MFS operations allegedly took place.

Sample MFS01 was collected from a sparsely vegetated area on the west side of the dirt road approximately 86 feet south of SH 186 and 22 feet west of the dirt road.

Sample MFS02 was collected approximately 45 feet south of SH 186 and 17 feet west of the dirt road.

Sample MFS03 was collected approximately 103 feet south of SH 186 and 22 feet west of the dirt road.

Sample MFS04 was collected from a grassy area approximately 0.2 miles south of SH 186 on the west side of the dirt road. This surface soil sample will serve as the background sample to determine ambient soil concentrations. The decision to collect an off-site background sample in this location was to obtain a sample from a location that would not have been affected by site activities. Based on file information, it was determined that this area was not part of the site. The property adjacent to the site on the east and west sides and north across SH 186 are active agricultural fields. These areas are most likely sprayed with pesticides on a routine basis, therefore making it unsuitable for a background sample location.

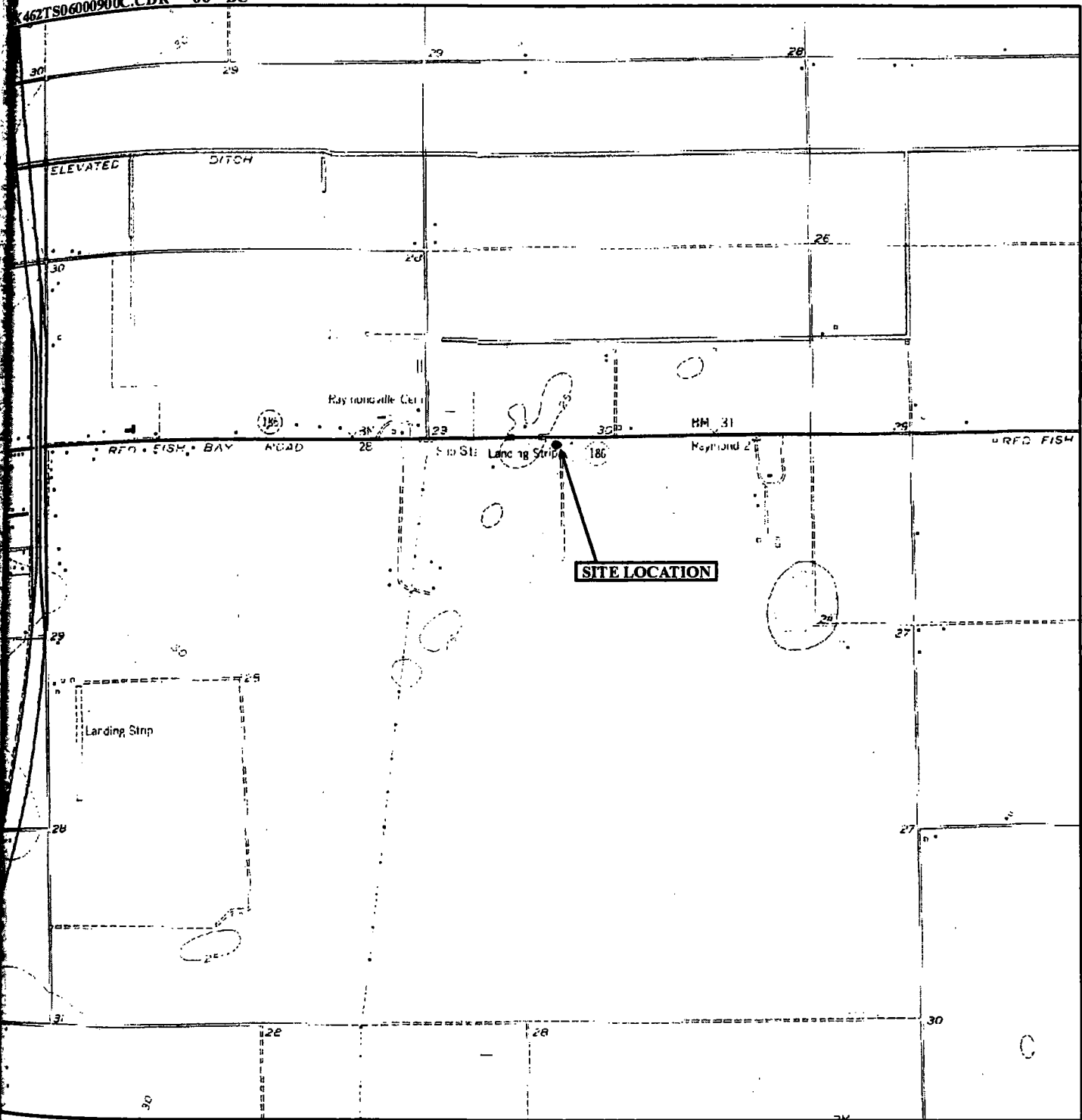
Samples Collected

<u>Sample Type</u>	<u>Number of Samples taken</u>	<u>Samples Sent To</u>	<u>Estimated Date Results Available</u>
Ground Water			
Surface Water			
Water			
Air			
Runoff			
Spill			
Soil/Sediment	4	ASC, Specialized Assays	02-10-00
Vegetation			
Other			

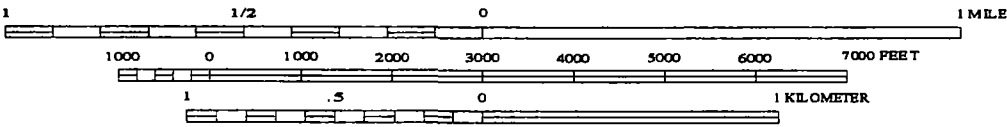
6.0 TARGETS

<p align="center">Describe adjacent targets and proximity to wastes (i.e., lagoon draining to creek, homes within 200 feet, stressed vegetation and contamination at homes, public and private drinking water wells within 1/4 mile, etc.)</p>
<p>Drinking water wells within 1/4 mile of site: No drinking water wells were identified within 1/4 mile of the site. Drinking water is obtained from surface water intakes in the Monte Alto Reservoir and the Rio Grande River.</p>
<p>Identify surface water pathway and distance to nearest surface water pathway:</p> <p>The site is located in a topographically flat area. The nearest surface water pathway is a small drainage ditch located along SH 186 which runs east/west.</p>
<p>There are no buildings on site. There are no residents located within 200 feet of the site. The site is located in a rural area which is primarily used for farming crops.</p>

7.0 SITE LOCATION MAP



SCALE 1:24 000



CONTOUR INTERVAL 10 FEET



QUADRANGLE LOCATION

ecology and environment, inc.
 Superfund Technical Assessment
 & Response Team - Region 6

JOB No. 000462.TS06.00.09.00

DATE: JANUARY 14, 2000

SOURCE: U.S.G.S. 7.5 MIN. TOPOGRAPHIC QUADRANGLES
 SAN PERLITA SOUTH & RAYMONDVILLE, TEXAS - 1956

FIGURE 7-1
 SITE LOCATION MAP
 MILLER'S FLYING SERVICE
 RAYMONDVILLE, WILLACE COUNTY, TEXAS

02 040

8.0 SITE FEATURE MAP



HWY 186

DRAINAGE DITCH

DIRT ROAD (FORMER AIRSTRIP)

SAMPLE
MFS02.

TREE

SAMPLE
MFS01.

GRASS/TREES

CULTIVATED
FIELDSAMPLE
MFS03.ABANDONED WATER
COLLECTION TANK

TREE

GRASS/TREES

BACKGROUND
SAMPLE
MFS04.
(~0.2 MILES SOUTH
OF HWY 186)

GRASS/TREES

VACANT
FIELD/PASTURE

OLD FENCE LINE

NOT TO SCALE



Ecology and environment, inc.
Dallas, Texas
International Specialists in the Environment

FIGURE 8-1

SITE SKETCH

MILLER'S FLYING SERVICE
RAYMONDVILLE, WILLACY COUNTY, TEXAS

JOB# 000462.TS06.00.09.00

Date: JANUARY 14, 2000

02 0.00

10.0 ANALYTICAL RESULTS AND VALIDATION

Section 10.0
Current Site Status and Hazardous Waste Determination
Analytical Data Summary*
Miller Flying Service
TXD981047574

	MFS04 Background		MFS01		MFS02		MFS03	
Volatile Organic Compounds (Method Nos. 5035/8260B)								
	mg/kg	SQL(mg/kg)	mg/kg	SQL	mg/kg	SQL(mg/kg)	mg/kg	SQL(mg/kg)
Acetone	0.019 JK	0.013	0.026 JK	0.0154	0.031 JK	0.018	0.022 JK	0.013
Semivolatile Organics (Method No. 8270C)								
Bis(2-ethylhexyl) phthalate	ND	0.350	1.02 JH	0.353	ND	0.469	ND	0.343
Pesticides (Method No. 8081A)								
4,4-DDE	0.037	0.003	24.1	14.137	0.411	0.038	0.144	0.017
4,4-DDT	R	0.003	142.0 JK	14.137	R	0.038	R	0.017
Toxaphene	1.03	0.1802	ND	728.28	12.3	1.972	2.66	0.874
Carbamates (Method No. 8318)								
Aldicarb sulfoxide	ND	10	0.001 QJK	10	ND	10	ND	10
Aldicarb sulfone	ND	10	0.001 Q	10	ND	10	ND	10
Methomyl	ND	10	0.002 Q	10	ND	10	ND	10
3-Hydroxycarbofuran	2.01 Q	10	0.002 Q	10	0.011	10	0.0014 Q	10
Baygon	ND	10	0.004 Q	10	ND	10	ND	10
Carbofuran	ND	10	0.0009 QJL	10	ND	10	ND	10
Carbaryl	ND	10	0.003 Q	10	ND	10	ND	10
Total Metals (Including Cyanide) (Method Nos. 6010B/7471A/9010B)								
	(mg/kg)	SQL(mg/kg)	(mg/kg)	SQL(mg/kg)	(mg/kg)	SQL(mg/kg)	(mg/kg)	SQL(mg/kg)
Barium	31.9	13.0	72.7	16.2	151.0	20.0	27.1	14.6
Arsenic	2.0	0.65	260.0	0.81	7.9	1.0	2.2	0.73
Cadmium	0.026 U	0.325	0.51	0.405	0.19	0.5	0.029 U	0.365
Chromium	3.1 JL	0.65	18.5 JL	0.81	11.1 JL	1.0	2.8 JL	0.73
Copper	3.0 JK	1.625	18.4 JK	2.025	14.9 JK	2.5	2.8 JK	1.825
Lead	4.1	0.6	42.2	0.6	16.6	0.6	3.8	0.6
Mercury	0.017 U	0.035	0.018 U	0.035	0.024	0.048	0.074	0.034

* Summary lists only hazardous compounds or analytes that were detected in the samples.

SQL = Sample Quantitation Limit

ND = analyte was not detected at the detection or quantitation limit

JK = sample concentration estimated; bias unknown

JH = sample concentration estimated; bias high

Q = sample concentration is below the sample quantitation or detection limit for the specific analyte in the sample

R = indicates that data is unusable

JL = sample concentration estimated; bias low

UB = presence of analyte may attributable to blank contamination and the analyte is therefore considered undetected

U = the material was analyzed for, but was not detected

02 01A

REFERENCE 3

RC 5/2/85

EPA POTENTIAL HAZARDOUS WASTE SITE IDENTIFICATION AND PRELIMINARY ASSESSMENT		6	TX 16381
NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.			
GENERAL INSTRUCTIONS: Complete Sections I and II through IV as completely as possible before Section V (Preliminary Assessment). File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency, Site Tracking System, Hazardous Waste Enforcement Task Force (EPA-J13), 401 L St., SW, Washington, DC 20460.			
I. SITE IDENTIFICATION			
A. SITE NAME Millers Flying Service		B. STREET (or other identifying) 4 miles east of Raymondville on SH 186	
C. CITY Raymondville		D. STATE Texas	E. ZIP CODE 78580
F. COUNTY NAME Willacy			
G. OWNER/OPERATOR (if known) 1. NAME Cal Miller, Owner		2. TELEPHONE NUMBER 512/689-5088	
H. TYPE OF OWNERSHIP <input type="checkbox"/> 1. FEDERAL <input type="checkbox"/> 2. STATE <input type="checkbox"/> 3. COUNTY <input type="checkbox"/> 4. MUNICIPAL <input checked="" type="checkbox"/> 5. PRIVATE <input type="checkbox"/> 6. UNKNOWN			
I. SITE DESCRIPTION Presently, site is inactive and a water tank, mixing vat and underground fuel storage tank are all that remain.			
J. HOW IDENTIFIED (i.e., owner's complaint, GSA records, etc.) <input type="checkbox"/> Texas Department of Agriculture		K. DATE IDENTIFIED (mm, day, & yr) 512/475-6371	
L. PRINCIPAL STATE CONTACT 1. NAME Robert Chapin, IDNR		2. TELEPHONE NUMBER 512/475-6371	
II. PRELIMINARY ASSESSMENT (complete this section last)			
A. APPARENT SERIOUSNESS OF PROBLEM <input type="checkbox"/> 1. HIGH <input type="checkbox"/> 2. MEDIUM <input type="checkbox"/> 3. LOW <input type="checkbox"/> 4. NONE <input checked="" type="checkbox"/> 5. UNKNOWN			
B. RECOMMENDATION <input checked="" type="checkbox"/> 1. NO ACTION NEEDED (no hazard) <input type="checkbox"/> 2. IMMEDIATE SITE INSPECTION NEEDED a. TENTATIVELY SCHEDULED FOR: _____ b. WILL BE PERFORMED BY: _____ <input type="checkbox"/> 3. SITE INSPECTION NEEDED a. TENTATIVELY SCHEDULED FOR: _____ b. WILL BE PERFORMED BY: _____ <input type="checkbox"/> 4. SITE INSPECTION NEEDED (low priority)			
C. PREPARER INFORMATION 1. NAME Don Shelton		2. TELEPHONE NUMBER 713/943-2922	3. DATE (mm, day, & yr) 4/11/85
III. SITE INFORMATION			
A. SITE STATUS <input type="checkbox"/> 1. ACTIVE (those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if under quantity) <input checked="" type="checkbox"/> 2. INACTIVE (those sites which no longer receive wastes) <input type="checkbox"/> 3. OTHER (specify: _____ (those sites that include such activities as "emergency dumping" where no regular or continuing use of the site for waste disposal has occurred.)			
B. IS GENERATOR ON SITE? <input checked="" type="checkbox"/> 1. NO <input type="checkbox"/> 2. YES (specify generator's identification code: _____)			
C. AREA OF SITE (in acres) 120	D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES 1. LATITUDE (deg-min-sec) 26° 29' 2. LONGITUDE (deg-min-sec) 97° 43'		
E. ARE THERE BUILDINGS ON THE SITE? <input checked="" type="checkbox"/> 1. NO <input type="checkbox"/> 2. YES (specify: _____)			

7200-1 (8-77)

Continue On Reverse

Administrall 11 Tax office

03 001 information

RCRA 3012 PRELIMINARY ASSESSMENT COMMENTS
MILLER FLYING SERVICE
RAYMONDVILLE, TEXAS
WILLACY COUNTY

ATTACHMENT

Documentation of Site Activities

During the week of February 25, 1985, when assessments were made in Willacy County, Cal Miller, the owner of Miller Flying Service was unable to be contacted by Don Shelton of Engineering-Science, Inc. Directions to his old site were obtained from another applicator, but the precise location could not be determined and the small amount of application equipment reported to still remain at the old site could not be observed. A telephone call to Mrs. Miller yielded most of the information needed about the site. A phone call to Mr. Miller provided no additional information.

Waste Management Practices

Miller Flying Service had been in business for about thirty years and ceased operations about three years ago. Mr. Miller would not discuss his handling procedures, because he felt was not obligated to do so. He mentioned that he sprays just the same way as everyone else. Reportedly, only a water tank, mixing vat and an underground fuel storage tank still exist at the site. Approximately 20,000 to 50,000 acres were treated each year.

Assessments and Conclusions

Because information concerning pesticide handling procedures and waste disposal practices was not obtained, a site inspection is recommended under the RCRA 3012 program.

**TWC SITE INSPECTION COMMENTS
MILLER FLYING SERVICE
RAYMONDVILLE, TEXAS
TX15381**

ATTACHMENT

**DOCUMENTATION OF SITE ACTIVITIES
AND SITE HISTORY**

Engineering-Science, Inc. (ES) conducted a site inspection of Miller Flying Service on July 30, 1986. Annette Ponds of ES conducted a telephone interview with Cal Miller, the business owner and operator. During the interview, information was provided on the history and operating practices at the site. Elroy Klosterman, the land owner and his lawyer, Roger Robinson, granted ES personnel permission to conduct a site visit. Neither Cal Miller nor Elroy Klosterman were present at the site when ES personnel toured the site and collected samples. Annette Ponds and David Highland of ES were at the site from 3:40 until 4:45 P.M.

Cal Miller was the sole owner of Miller Flying Service from 1956 until 1982 when the business was discontinued. The operations used approximately 6 acres. Operations of Miller Flying Service involved aerial application only; however, Mr. Miller indicated that from 1956 until 1982, out-of-state ground applicators routinely used the runway for mixing herbicides and pesticides. Mr. Miller sprayed approximately 30,000 acres per year. A maximum of three employees worked at the site at any time and Mr. Miller indicated that there were no personal injury or health problems related to operations at the site.

Water used at the site and by individuals in the area is supplied by the North Alamo Water Supply which receives water from the Monte Alto Reservoir and ultimately the Rio Grande River.

During the site reconnaissance, several plastic containers and 55-gallon drums were observed. There were approximately 15 empty plastic drums with Bivert labels and approximately 10 empty rusted 55-gallon drums. Some of the drums had bidrin labels but most did not have labels. There were no colors from the drums.

There was an area of stressed vegetation near the drainage ditch in the northwest corner of the site. There were strong pesticide odors in this area.

Mr. Miller indicated that he used pesticides only at the site. These included methyl parathion, sprayable Sevin, malathion, and some lindane.

At the conclusion of the site reconnaissance, two soil samples were collected. One sample was collected from the drainage ditch east of the site and another from the drainage ditch west of the site near the area of stressed vegetation. Sample locations are shown on the site sketch. The samples were analyzed for Lindane, DDE, DDD, DDT, toxaphene, azinphos-methyl and ethyl parathion. The analytical results are included in Attachment D.

ATTACHMENT

WASTE MANAGEMENT PRACTICES

Mr. Miller indicated that during operations, there was one central mixing area with two tanks. One tank was used for mixing; the other was used for water storage. Kinsate from planes and containers was placed in the mixing tank and reused. Individual farmers furnished their own chemicals. Mr. Miller, after triple-rinsing the containers, hauled the empty containers to the Raymondville City dump for disposal.

ASSESSMENT AND CONCLUSIONS

No major problems were noted during the inspection with respect to site management. The only notable potential problems were empty tanks and containers which remained on site and the strong pesticide odors associated with the area of stressed vegetation. The data indicate that there was no contamination in the samples collected at the site. All parameters tested for showed below detection limit values.

In view of the data indicating no soil contamination at the site and the remote possibility that any drinking water source would have been impacted by the past operations, further action by the TWC is not recommended for this site.

REFERENCE 4

Bays and Estuaries (24) and Gulf of Mexico (25)

BAYS AND ESTUARIES (24)

The Texas Coast includes nine major bay systems. The coastal plain is characterized by a gently sloping, lowland environment. Historical periods of coastal flooding and intense sediment deposition have sculpted the Gulf of Mexico shoreline. Today, much of the coastal region is comprised of large bays, lagoons, extensive wetlands, sandy beaches, and barrier islands. Most coastal waters in Texas are named as bays, but have freshwater inflows that make them estuaries. The estuaries are typically bordered by tidal marshes and mud-sand flats. Most of the Texas estuaries are shallow, have turbid water due to suspended sediment, and are semi-enclosed by barrier islands.

Segments that contain multiple bays are shown with separate labels for each bay.

- 2411 Sabine Pass * - from the end of the jetties at the Gulf of Mexico to SH 82
- 2412 Sabine Lake *
- 2421 Upper Galveston Bay *
- 2422 Trinity Bay *
- 2423 East Bay *
- 2424 West Bay *
- 2425 Clear Lake *
- 2426 Tabbs Bay *
- 2427 San Jacinto Bay *
- 2428 Black Duck Bay *
- 2429 Scout Bay *
- 2430 Burnett Bay *
- 2431 Mossy Lake *

- 2432 Chocolate Bay *
- 2433 Bastrop Bay/Oyster Lake *
- 2434 Christmas Bay *
- 2435 Drum Bay *
- 2436 Barbour's Cut *
- 2437 Texas City Ship Channel *
- 2438 Bayport Channel *
- 2439 Lower Galveston Bay *
- 2441 East Matagorda Bay *
- 2442 Cedar Lakes *
- 2451 Matagorda Bay/Powderhorn Lake *
- 2452 Tres Palacios Bay/Turtle Bay *
- 2453 Lavaca Bay/Chocolate Bay *
- 2454 Cox Bay *
- 2455 Keller Bay *
- 2456 Corpus Christi Bay *
- 2461 Esperito Santo Bay *
- 2462 San Antonio Bay/Hynes Bay/Guadalupe Bay *
- 2463 Mesquite Bay/Carlos Bay/Arroyo Bay *
- 2471 Aransas Bay *
- 2472 Comano Bay/Port Bay/Mission Bay *
- 2473 St. Charles Bay *

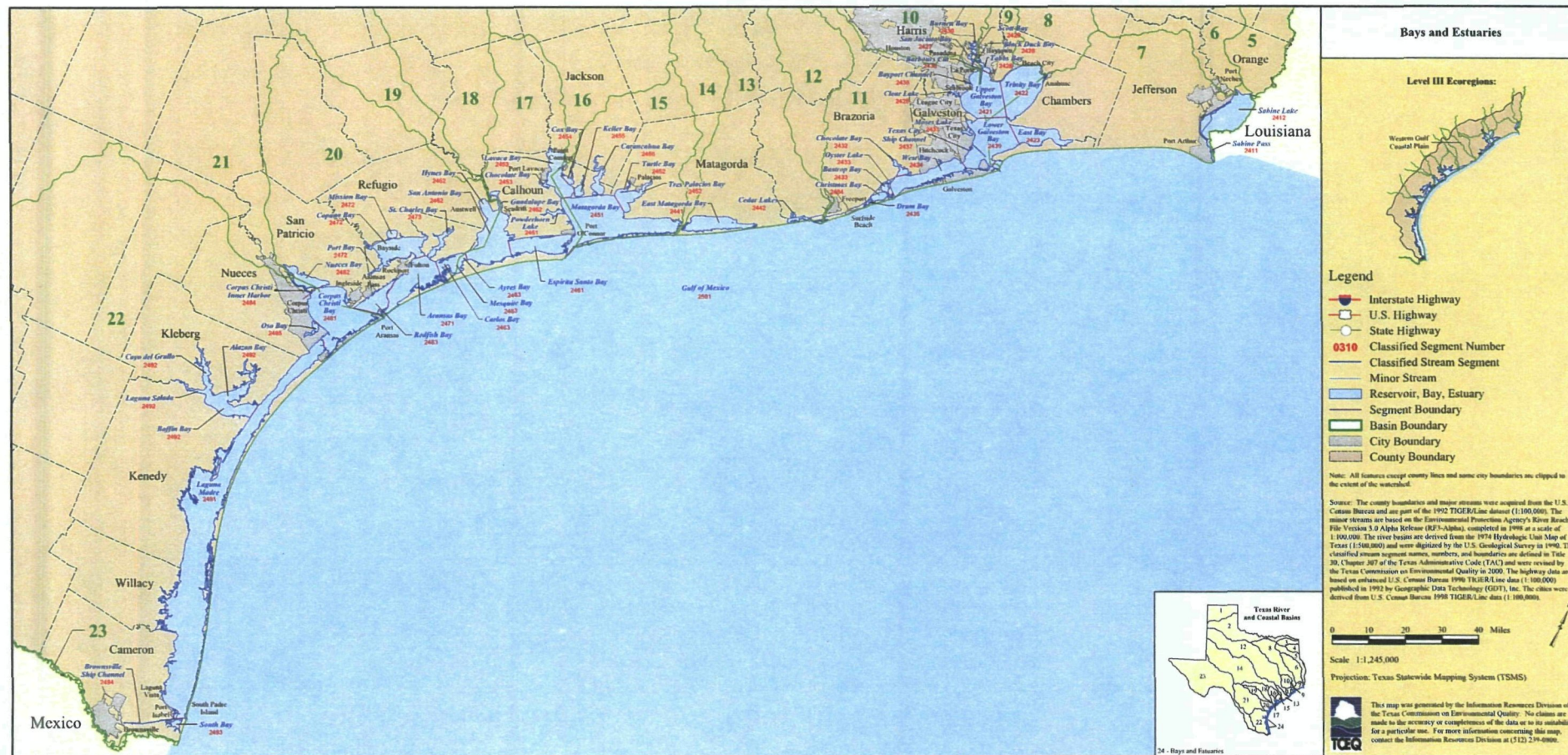
- 2481 Corpus Christi Bay *
- 2482 Nueces Bay *
- 2483 Redfish Bay *
- 2484 Corpus Christi Inner Harbor * - from US 181 to Viola Turning Basin
- 2485 Udo Bay *
- 2491 Laguna Madre *
- 2492 Raffin Bay/Alazan Bay/Cayo del Grillo/Laguna Salada *
- 2493 South Bay *
- 2494 Brownsville Ship Channel *

GULF OF MEXICO (25)

The Gulf of Mexico covers about 600,000 square miles; Texas has jurisdiction over less than 1 percent of the total surface area. The open water portion of the Gulf in Texas covers approximately 3,879 square miles and includes 624 shoreline miles. The Gulf of Mexico provides various marine resources including navigation, recreation, oil and gas, commercial fisheries, and oysters. Gulf coast ports are served by the Gulf Intracoastal Waterway, which extends 1,200 miles from Brownsville to Carrabelle, Florida.

- 2501 Gulf Waters - The state's area of jurisdiction in the Gulf of Mexico extends from the mean high water mark out to 10.36 miles into the Gulf, in the area between Sabine Pass to the north and Brazos Santiago Pass to the south.

* The segment boundaries are considered to be the mean high tide line.



REFERENCE 5



**Update of Estimated Agricultural
Benefits Attributable to Drainage and
Flood Control in Willacy County, Texas**

Raymondville Drain

Static and Stochastic Implications

**Prepared for the U.S. Army Corp of Engineers
Galveston, Texas**

by

**Ronald D. Lacewell
Roger Freeman
David Petit
Ed Rister
Allan Sturdivant
Luis Ribera
Michele Zinn**

Texas Water Resources Institute

Texas A&M University

Acknowledgements

This evaluation is an update of an earlier study for the South Main and Raymondville Drain in Willacy County. Therefore, we remain indebted to the efforts of a team where each contributed in their area of expertise. The Corps of Engineers provided much of the basic information as soils and the study area while the Texas Agricultural Experiment Station updated the economic model, applied it and interpreted the results. The spirit of a cooperative agreement is fulfilled when there is a vested contribution by both the Corps of Engineers and Texas Agricultural Experiment Station. The mission of both is addressed.

Much of the base model data were generated through focus groups comprised of the leaders in the study area. We are indebted to them for their generous allocation of time.

Executive Summary

This report represents an update on the 2001 evaluation of benefits attributable to the South Main Drain in Willacy County. The results are limited to agricultural benefits due to reduced flood damages and improved drainage. The ABE model was updated to reflect current inputs and associated costs as well as the normalized prices. The 2006 Texas Cooperative Extension crop enterprise budgets were used to update the crop budgets in the ABE model. Since 2001, the costs have increased and normalized prices are dramatically less. The means that the expected benefits of the Raymondville Drain are substantially lower. In addition, the current discount rate of 5.125% was applied to calculate present value over the 50 year planning horizon.

The first sections of this report are a repeat of the base data. However, the soils and expected yields with applicable acres for each were developed just for the Raymondville Drain area of study. This study area information is presented initially in the report. Some of the highlights of benefits are presented in this summary.

Static Analysis

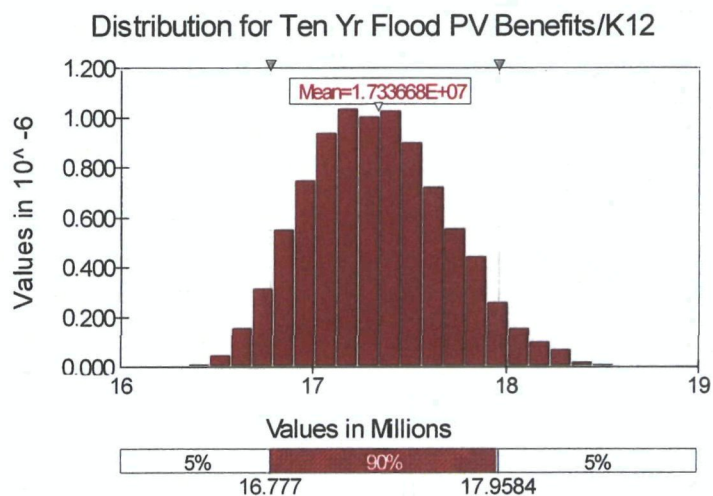
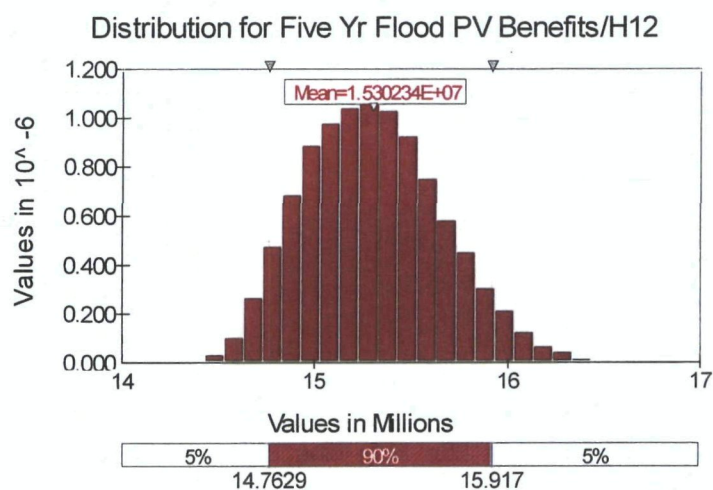
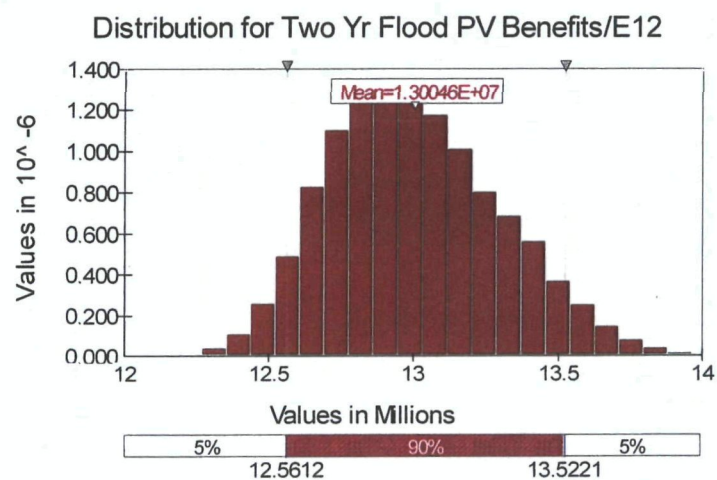
For the static analysis, the total per acre benefits and the present value over a 50 year planning horizon were estimated. The results are as follows:

	<u>Flood Frequency</u>		
	<u>50%</u>	<u>20%</u>	<u>10%</u>
Average Annual Benefits (thou \$)	726	854	968
Present Value of Benefits (mil\$)	13.00	15.30	17.34

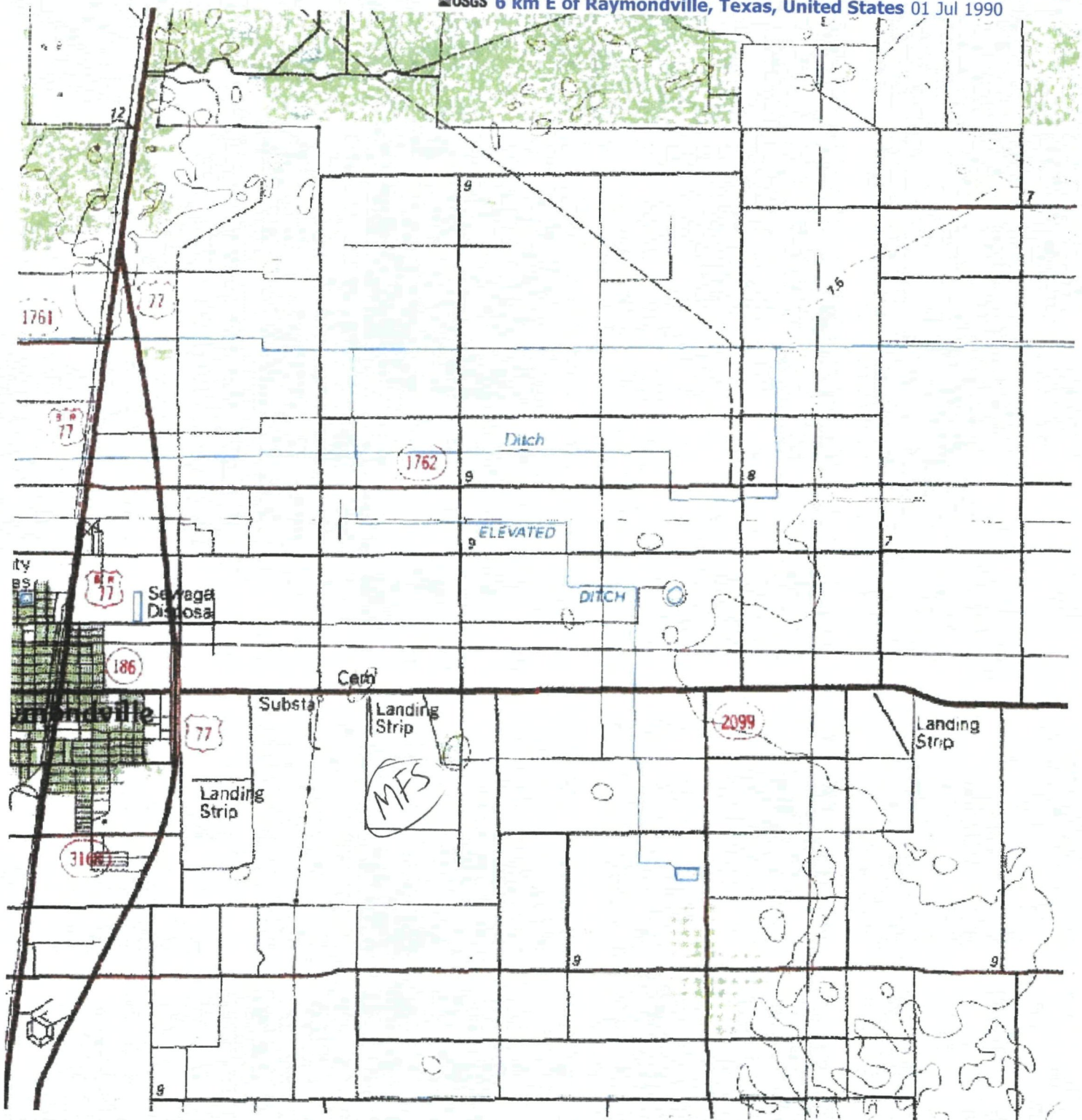
This suggests that for the static analysis the benefits for on an average annual basis are \$726 thousand for the 50% rainfall event, \$854 thousand for the 20% event and \$968 thousand for the 10% event. The present value of benefits for agriculture across all acres is \$13 million for the 50% occurrence event, \$15.3 million for the 20% event and \$17.3 for the 10% event. The benefits of a project that protects from the 10% rainfall event are over four million dollars greater than for the 50% event. This is nearly a 25% increase in benefits.

Stochastic Analysis

Using the range in probabilities provided by the focus group sessions in the study area, the ABE model was applied under @Risk to generate a range of benefits and associated likelihood. The results of the stochastic analysis are presented in graphical form as a cumulative distribution. In reviewing the graphs below, the expected benefits of the 50% rainfall event would be between \$12.6 and \$13.5 million 90% of the time. Similarly, for the 20% event, the 90% range in benefits is from \$14.8 and \$15.9 million. The 90% increment, for expected benefits for protection at the 10% event level, ranges from \$16.8 and \$18 million.



REFERENCE 6



06 001

4/7/10
ES

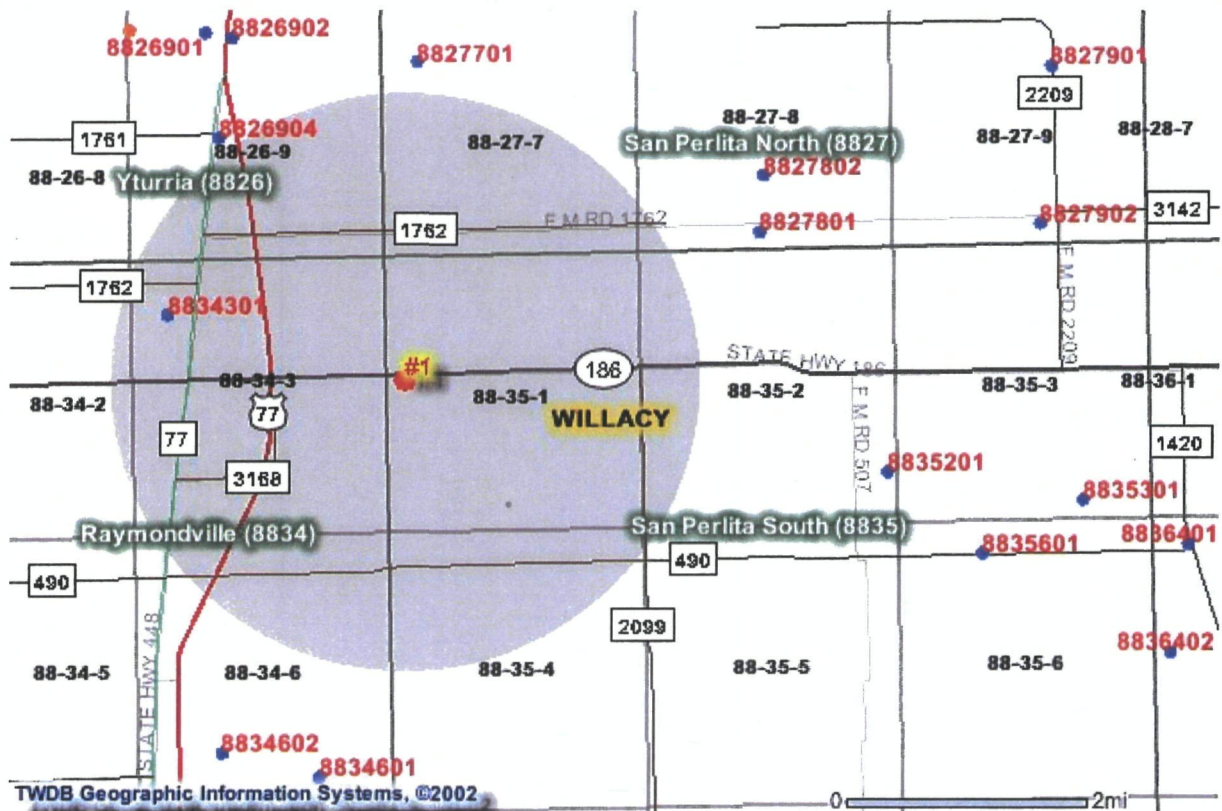
REFERENCE 7



Texas Water Development Board **Water Information Integration & Dissemination System**



Willacy County Well Locations Within Three Miles of Miller Flying Service



- Legend**
- TWDB Groundwater Data
 - Submitted Driller's Reports
 - State Hwy
 - FM & RM Roads
 - Other State Roads
 - Interstate Hwy
 - US Hwy
 - 7.5' USGS Grid
 - 2.5' State Grid
 - Counties
 - Major Streets

APPENDICES

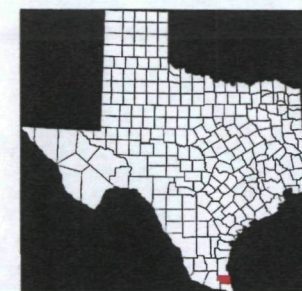
APPENDIX A
Site Location Map



Millers Flying Service
Raymondville, Willacy County, TX
TXD 981047574



Site Locations Map



The base data used for this map is aerial imagery of Willacy County. Projection: NAD 1983, UTM Zone 14 N. This map was generated by the Remediation Division of the Texas Commission on Environmental Quality. It is intended for illustrative or informational purposes only, and is not suitable for legal, engineering, or survey purposes. This map does not represent an on-the-ground survey conducted by or under the supervision of a registered professional land surveyor. In cases where property boundaries are shown, it only represents their approximate relative location. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Remediation Division at 800-633-9363.

0 2,375 4,750 9,500 Feet

APPENDIX B

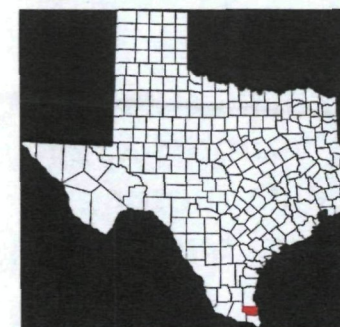
Site Features Map



**Millers Flying Service,
Raymondville,
Willacy County, TX
Site A - TXD 981047574**



Site Features Map



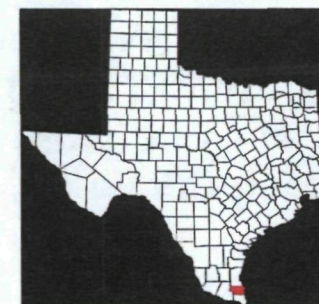
The base data used for this map is aerial imagery of Willacy County. Projection: NAD 1983, UTM Zone 14 N. This map was generated by the Remediation Division of the Texas Commission on Environmental Quality. It is intended for illustrative or informational purposes only, and is not suitable for legal, engineering, or survey purposes. This map does not represent an on-the-ground survey conducted by or under the supervision of a registered professional land surveyor. In cases where property boundaries are shown, it only represents their approximate relative location. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Remediation Division at 800-633-9363.



**Millers Flying Service,
Raymondville,
Willacy County, TX
Site B - TXD 981047574**



Site Features Map



The base data used for this map is aerial imagery of Willacy County. Projection: NAD 1983, UTM Zone 14 N. This map was generated by the Remediation Division of the Texas Commission on Environmental Quality. It is intended for illustrative or informational purposes only, and is not suitable for legal, engineering, or survey purposes. This map does not represent an on-the-ground survey conducted by or under the supervision of a registered professional land surveyor. In cases where property boundaries are shown, it only represents their approximate relative location. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Remediation Division at 800-633-9363.

APPENDIX C

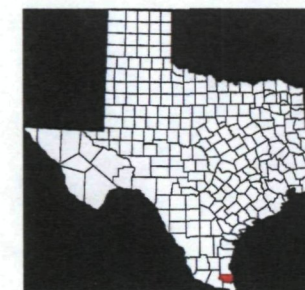
Surface Water Intake Map



Millers Flying Service
Raymondville, Willacy County, TX
TXD 981047574



Surface Water Intake



The base data used for this map is aerial imagery of Willacy County. Projection: NAD 1983, UTM Zone 14 N. This map was generated by the Remediation Division of the Texas Commission on Environmental Quality. It is intended for illustrative or informational purposes only, and is not suitable for legal, engineering, or survey purposes. This map does not represent an on-the-ground survey conducted by or under the supervision of a registered professional land surveyor. In cases where property boundaries are shown, it only represents their approximate relative location. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Remediation Division at 800-633-9363.

0 4,100 8,200 16,400 Feet

APPENDIX D

Photograph Documentation



Site A

Photograph: 1

Photographer: Elizabeth Simmons

Description: Electric Power Substation directly west of the property

Date: 2/18/2010

Direction: West



Site A	Date: 2/18/2010
Photograph: 2	Direction: South
Photographer: Elizabeth Simmons	
Description: West side of property where Millers Flying Service operated	



Site A

Photograph: 3

Photographer: Elizabeth Simmons

Date: 2/18/2010

Direction: East

Description: East side of property – viewing dock (far left), pond and windmill



Site B
Photograph: 1
Photographer: Elizabeth Simmons
Description: Cultivated farmland

Date: 2/18/2010
Direction: South



Site B

Photograph: 2

Photographer: Elizabeth Simmons

Description: Closest residence

Date: 2/18/2010

Direction: Southwest



Site B

Photograph: 3

Photographer: Elizabeth Simmons

Description: Closest residence to the east

Date: 2/18/2010

Direction: Southeast



Site B

Photograph: 4

Date: 2/18/2010

Photographer: Elizabeth Simmons

Direction: East

Description: Drainage ditch on the north side of the property
running east/west



Site B

Photograph: 5

Photographer: Elizabeth Simmons

Date: 2/18/2010

Direction: South

Description: Well and well house located in the backyard of residence on west side of the property

APPENDIX E

Field Notes

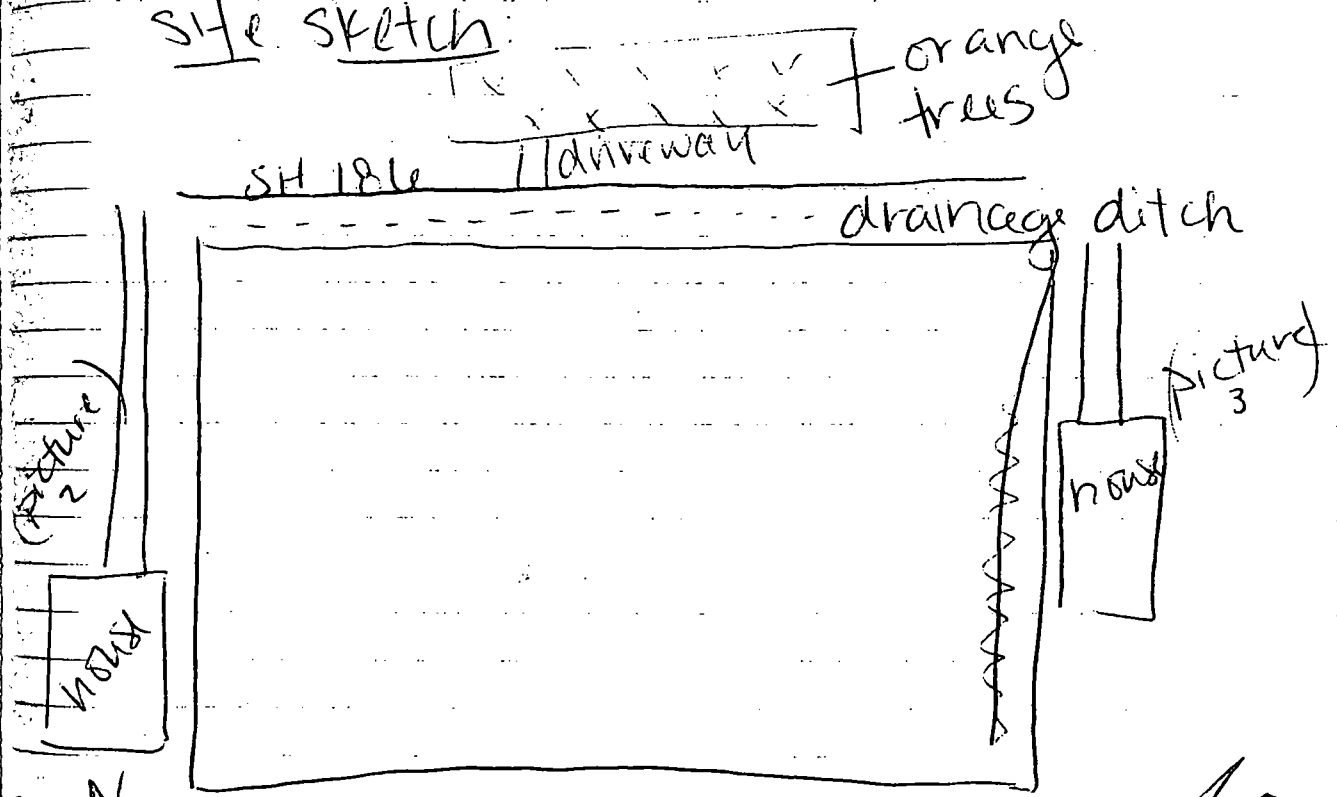
Miller Flying Service (B) 4/2/10

12:05 Arrive at site B with Mary Simpson, Omar Valdez and Elizabeth Simmons. Review Health and Safety plan. Weather conditions: overcast, light rain, windy.

12:14 Picture 1 taken by Elizabeth Simmons facing south. Cultivated farm land

12:16 Picture 2 (Elizabeth Simmons) closest residence adjacent to property - facing south west

Site sketch



AO21818A GPS - site entrance

ES 4/8/10

12:23 Picture 3 (Elizabeth Simmons) adjacent house (South east)

Do not see any signs of ~~contamination~~
activity other than farming. Land
has been completely tilled for farming.
12:28 Picture 4 (Elizabeth Simmons) facing
East drainage ditch → water would
flow north to the ditch then east
down SH 186.

12:30 (to to adjacent home (picture 2) to
inquire about the closest well. No
one answered but we saw a well
house in the backyard.

12:35 Picture 5 (Elizabeth Simmons) facing
South → well house

ES
4/8/10

Miller Flying Service (A) #2/18/10

12:43 Arrive at potential site A with Mary Simpson, Omar Valdez and Elizabeth Simmons

12:45 Picture 1: (Elizabeth Simmons - facing west) electric power transfer station adjacent to property)

12:46 Picture 2: (Elizabeth Simmons - facing south) overgrown land with cacti, small trees various brush.

No sign of any activity. Land appears abandoned.

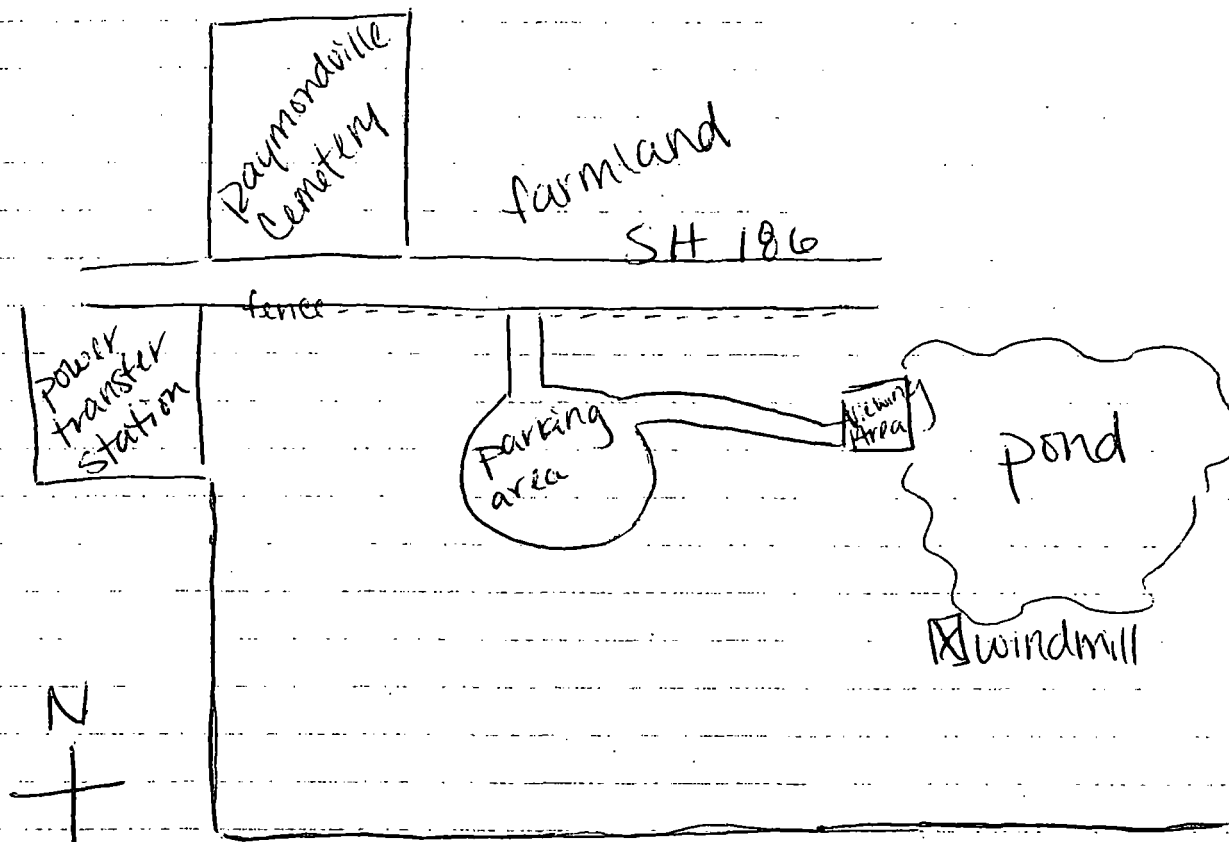
12:47 NO 21818B GPS - Site entrance
Picture 3: (Elizabeth Simmons - facing E) pond / windmill - ~~last~~ bird refuge - State wildlife viewing area

water drains toward the pond to the east

- lots of birds / viewing area

ES 4/18/10

Site sketch



ES 4/8/10

APPENDIX F

Health and Safety Plan



Pre-CERCLIS Screening Health and Safety Plan

for

**Miller Flying Service
Raymondville, Willacy County, TX
TXD981047574**

February 2010

HEALTH AND SAFETY PLAN
FOR
PRE-CERCLIS SCREENING
SITE RECONNAISSANCE

Miller Flying Service

Prepared by

Texas Commission on Environmental Quality
Superfund Site Discovery and Assessment Program
Austin, Texas

Reviewed and approved by

Site Safety Officer:

ESIMMS
Name

2/17/10
Date

Project Manager:

ESIMMS
Name

2/17/10
Date

PA/SI Program
Representative:

Melissa Cardell
Name

2/17/10
Date

TCEQ Central Office
Health & Safety
Representative:

[Signature]
Name

2/17/10
Date

February 2010

Table of Contents

EMERGENCY CONTACTS.....	1
Health and Safety Plan.....	4
1.0 Introduction.....	4
2.0 Personnel.....	4
3.0 Site Description and History	4-5
3.1 Site Reconnaissance Tasks	5
3.2 Site Description	5
3.3 History of Documented Contamination and Hazards at the Site	5
4.0 Hazards	5
4.1 Chemical Hazards	5
4.2 Physical Hazards	5-6
4.3 Radiation Hazards	6
5.0 Health and Safety Directives.....	6
5.1 General Health and Safety Requirements	6
5.2 Personnel Protective Equipment	6-7
5.3 Documentation.....	7
6.0 Air Monitoring	7
7.0 Emergency Response Procedures	7
8.0 EPA Notification of Imminent Danger to the General Public	7

Figures

1	Site Location Map	2
2	Hospital Location Map	3

Attachments

A	Heat and Cold Stress
B	Health and Safety Checklist
C	Radiation Screening Checklist

EMERGENCY CONTACTS

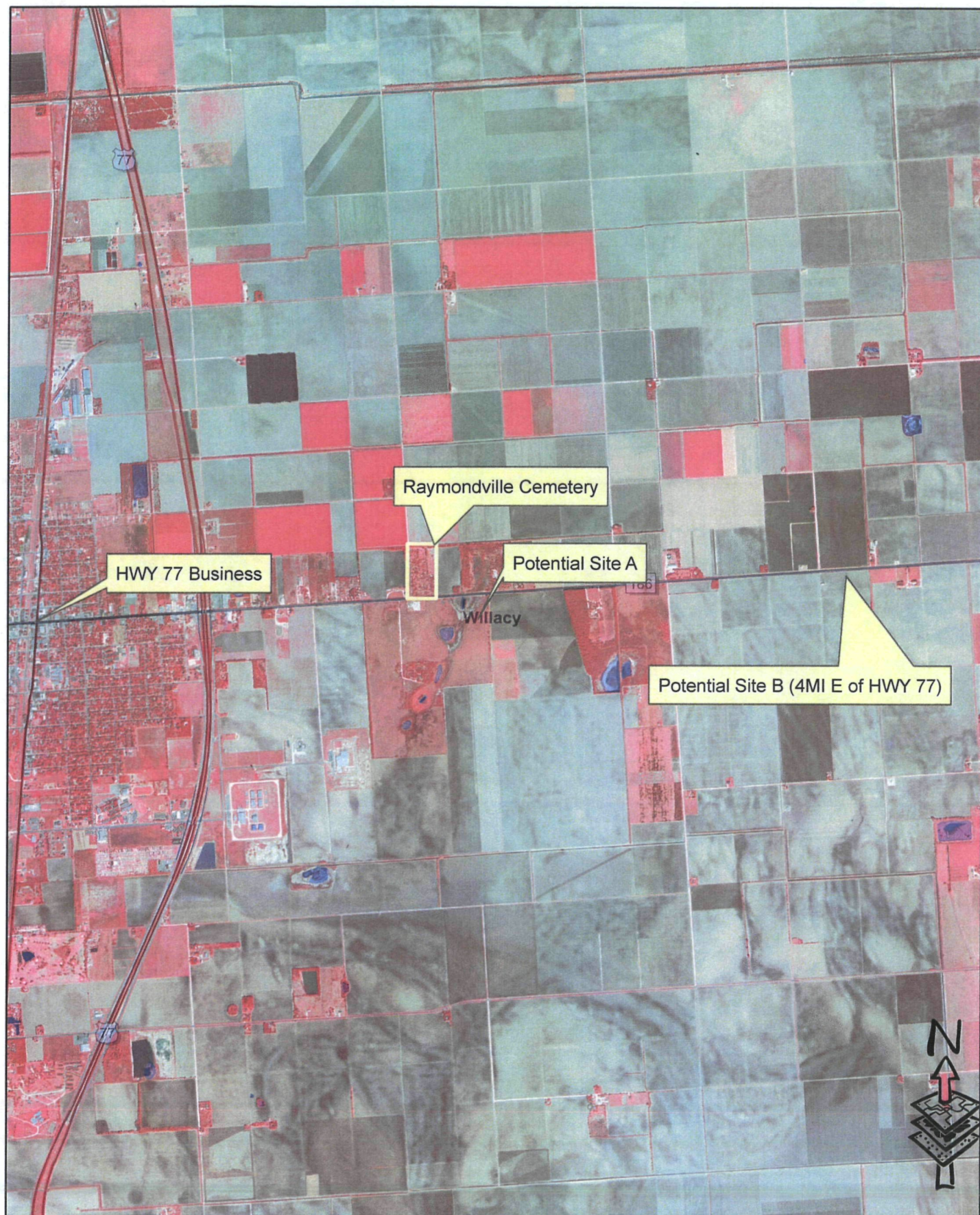
In the event of any situation or unplanned occurrence requiring assistance, the appropriate contact(s) should be made from the list below. For emergency situations contact the appropriate response teams.

Contingency Contacts	Phone Number
Fire Department	911
Police	911
Sheriff's Department	911

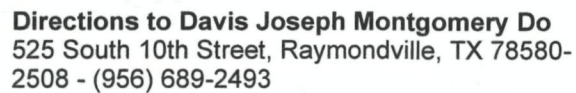
Medical Emergency	
Hospital Name	Davis Joseph Montgomery Doctor
Hospital Phone No.	(956) 689 - 2493
Hospital Address	525 S 10 th St. Raymondville, TX 78580

TCEQ Contacts		
TCEQ SSDAP Program Coordinator and PA/SI Program Manager	Melissa Cordell Austin, Texas	(512) 239-2473
TCEQ PA/SI Grant Manager	Randy Arnett Austin, Texas	(512) 239-2467
TCEQ Central Office Health and Safety Representative	Omar Valdez Austin, Texas	(512) 239-6858
Project Manager	Elizabeth Simmons Austin, Texas	(512) 239-2606

Potential Sites for Miller Flying Service - Raymondville, TX



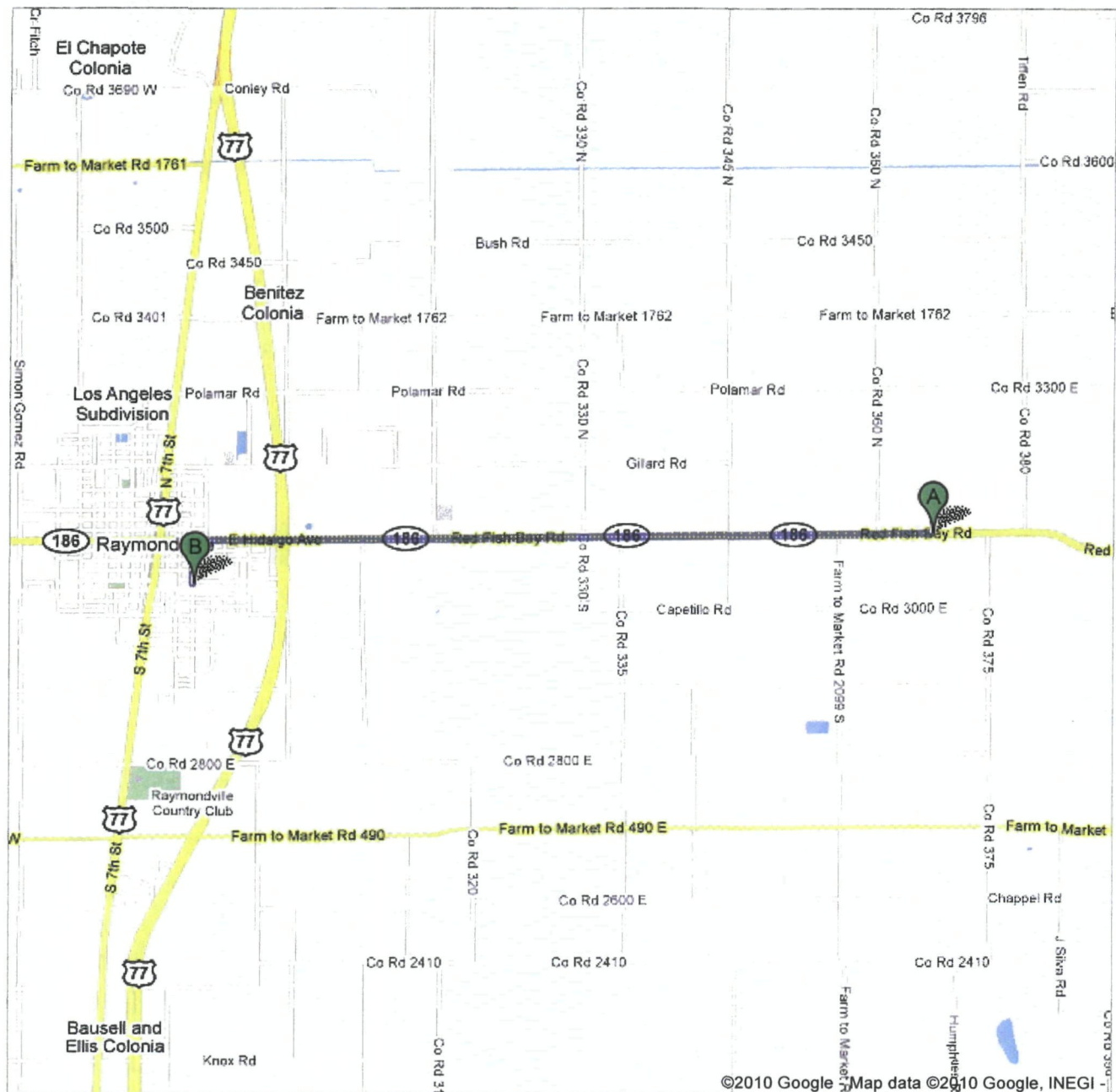
0 625 1,250 2,500 Meters



1. Head WEST on Red Fish Bay Rd/TX-186 toward Co Rd 360 N

2. Turn LEFT at S 10 St

3. Destination will be on the LEFT



**Miller Flying Service
Pre-CERCLIS Screening
Health and Safety Plan**

1.0 Introduction

The Provisions of this Health and Safety Plan (HASP) apply to the Pre-CERCLIS Screening site reconnaissance to be conducted at Miller Flying Service. Activities to be performed include performing a visual inspection of the site and areas of potential contamination, interviewing property owners and site personnel, conducting a radiation screening, collecting GPS data, obtaining photographic documentation and logging site information. This plan has been prepared by the Site Investigator.

This HASP describes the procedures to be followed and the protective equipment to be used by all TCEQ personnel for this phase of work on this project. The health and safety requirements presented herein are based on information available at this time and are subject to revision upon subsequent discoveries regarding potential hazards at the site. As this plan is intended to minimize the risk of injury from physical hazards and exposure to chemical hazards, TCEQ personnel are required to abide by its provisions.

2.0 Personnel

The site inspection team is comprised of two (2) TCEQ personnel for every site visit. During this site visit, however, there will be three. The Project Manager is designated as the Site Health and Safety Officer who will be responsible to see that the inspection is performed in a manner consistent with the Health and Safety Plan. The Site Health and Safety Officer will be responsible for Health and Safety briefings before each daily on-site inspection. The Site Health and Safety Officer may suspend field activities indefinitely, if health and safety of personnel are endangered. The Site Health and Safety Officer may suspend an individual from the field activities indefinitely for infractions of this HASP.

3.0 Site Description and History

This site is in a rural area a few miles east of Raymondville on the south side of State Highway 186. The site consists of six acres of farm land divided by an old airstrip that is no longer in use. The east side of the airstrip is cultivated and used for cotton and grain sorghum. The west side of the airstrip is no longer used for farming and has gone back to its native grasses and weeds.

Miller Flying Service was an aerial pesticide applicator that operated from 1956 – 1982. During that time, the owner, Cal Miller, used the land for mixing and storing herbicides and pesticides. During the years of operation, the site consisted of a large mixing vat, water tank and an underground storage tank located west of the water collection tank. Rinsates from plains and containers were placed in the mixing vat and reused. All containers were triple rinsed and taken to the Raymondville City Dump.

The nearest public water supply is the City of Raymondville about four miles west of the site. The drinking water source is the Monte Alto Reservoir and the Rio Grande River. The nearest irrigation well is 2.5 miles west of the site.

3.1 Site Reconnaissance Tasks

The Pre-CERCLIS Site Visit Checklist shall be followed. Upon arrival at the site, the inspection team will conduct a site safety briefing in which the contents of this health and safety plan will be discussed. The inspection team will conduct an initial survey of the site conditions to ensure all necessary safety precautions are considered during site activities (see Attachment B for Health and Safety Checklist). Site Reconnaissance may include reviewing records, taking photographs, walking the site, and observing onsite conditions.

3.2 Site Description

The site is six acres of farmland surrounded by other farming properties. The three acres on the east side of the airstrip are currently being used for cotton and grain sorghum; the three on the west are native grasses and weeds.

3.3 History of Documented Contamination and Hazards at the Site

On November 11, 1999 a sampling inspection was conducted by a TCEQ contractor. Four soil samples were taken on the west side of the airstrip where the mixing/storing activities took place. Of the four samples collected, one of them (taken approximately 86 feet south of State Highway 186 and 22 feet west of the old airstrip) showed concentrations of DDT and Arsenic to be above the Tier 1 commercial/industrial PCL. The current property owner, Jack Klosterman, said that the east portion of the property and the surrounding fields were periodically sprayed with methyl parathion and atrazine.

4.0 Hazards

4.1 Chemical Hazards

Currently, there are no chemicals being stored on site. The only potential chemical hazard could be found in the soil. Chemicals of concern include arsenic, atrazine, DDT, parathion, Toxaphene. All three chemicals are stable. DDT and Toxaphene are heat and light sensitive, and all three are harmful if inhaled, swallowed or absorbed through the skin.

4.2 Physical Hazards

Inability to see where walking is a potential hazard on site because the west side of the property may be unkempt and not mowed. Other general hazards include but are not limited to: tripping where the ground may be uneven or where objects protrude or are hidden, punctures from objects protruding

from the surface, and bites from animals.

Personnel performing inspections shall be required to wear personal protective equipment (PPE) as specified in Section 5.2. Personnel should be aware that protective equipment limits dexterity and visibility, and places a physical strain on the wearer. Heat and cold stress injuries are always a possibility in hazardous waste work and field work in general. Refer to Attachment A for Heat and Cold Stress information.

4.3 Radiation Hazards

No radiation hazards are expected as can be discerned from process knowledge.

5.0 Health and Safety Directives

5.1 General Health and Safety Requirements

Only personnel who have completed and are current with the 40-hour Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) and have participated in the TCEQ Medical Monitoring Program per OSHA requirements will be allowed on the site. No eating, drinking, smoking, or any other activity involving hand-to-mouth contact will be permitted while onsite. Contact lenses may not be worn during field work.

5.2 Personnel Protective Equipment

The following minimum personal protective equipment shall be worn during the inspection:

Level "D" Protection: tyvek coveralls (professional judgment), neoprene, PVC, or leather steel-toe work boots, optional inner vinyl or latex surgical gloves, optional outer neoprene work glove, safety glasses, goggles or face mask (as appropriate), ear plugs (as appropriate) and hard hat (as appropriate).

This HASP addresses anticipated activities for the performance of a Pre-CERCLIS site inspection only. If any situation arises requiring a PPE upgrade from the standard Level "D" protection, TCEQ personnel will evacuate the property immediately.

5.3 Documentation

Implementation of the provisions of this HASP will be recorded in the field log book. Information to be recorded shall include but is not limited to: weather conditions, personnel on-site, levels of protection worn, monitoring/screening instrument readings, subjects discussed during site health and safety briefings, and safety violations.

6.0 Air Monitoring

No potential hazards related to vapor emissions are anticipated as can be determined from process knowledge, and therefore, no air monitoring will be conducted.

However, should vapor emissions of any kind be observed, TCEQ personnel shall evacuate the site immediately. Any observations of vapor emissions will be recorded in the field log book.

7.0 Emergency Response Procedures

In the event of an emergency situation arising such as injury, illness or fire, the appropriate immediate response must be taken by the first person to recognize the situation. If the site is evacuated, all TCEQ personnel shall travel to the designated rally point. This designated rally point will be identified by the Site Safety Officer during the site safety briefing.

First-aid equipment will be available on-site and personnel will keep them close at hand.

Emergency contacts and a route to the hospital will be discussed by the Site Health and Safety Officer during the site safety briefing prior to entering the site. This HASP shall be available in the field during site activities and its location known to all participating personnel.

8.0 EPA Notification of Imminent Danger to the General Public

If an imminent danger to human health and/or the environment is discovered during this site inspection from hazardous substances or wastes, or other site conditions, the Site Investigator will notify the Program Manager who will notify the EPA no later than 24 hours after the inspection team returns from the site visit. Written notification will follow any verbal communication in this regard.

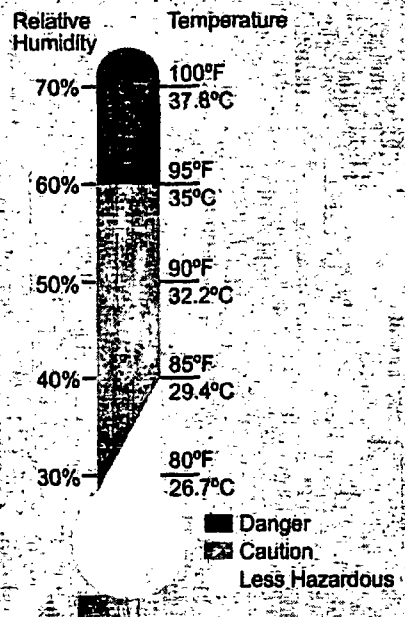
Attachment A
Heat and Cold Stress



The Heat Equation

**HIGH TEMPERATURE + HIGH HUMIDITY
+ PHYSICAL WORK = HEAT ILLNESS**

When the body is unable to cool itself through sweating, serious heat illnesses may occur. The most severe heat-induced illnesses are heat exhaustion and heat stroke. If left untreated, heat exhaustion could progress to heat stroke and possible death.



Heat Exhaustion

What are the symptoms?

HEADACHES; DIZZINESS OR LIGHTEADEDNESS; WEAKNESS; MOOD CHANGES SUCH AS IRRITABILITY, CONFUSION, OR THE INABILITY TO THINK STRAIGHT; UPSET STOMACH; VOMITING; DECREASED OR DARK-COLORED URINE; FAINTING OR PASSING OUT; AND PALE, CLAMMY SKIN

What should you do?

- Act immediately. If not treated, heat exhaustion may advance to heat stroke or death.
- Move the victim to a cool, shaded area to rest. Don't leave the person alone. If symptoms include dizziness or lightheadedness, lay the victim on his or her back and raise the legs 6 to 8 inches. If symptoms include nausea or upset stomach, lay the victim on his or her side.
- Loosen and remove any heavy clothing.
- Have the person drink cool water (about a cup every 15 minutes) unless sick to the stomach.
- Cool the person's body by fanning and spraying with a cool mist of water or applying a wet cloth to the person's skin.
- Call 911 for emergency help if the person does not feel better in a few minutes.

Heat Stroke—A Medical Emergency

What are the symptoms?

DRY, PALE SKIN WITH NO SWEATING; HOT, RED SKIN THAT LOOKS SUNBURNED; MOOD CHANGES SUCH AS IRRITABILITY, CONFUSION, OR THE INABILITY TO THINK STRAIGHT; SEIZURES OR FITS; AND UNCONCIOUSNESS WITH NO RESPONSE

What should you do?

- Call 911 for emergency help immediately.
- Move the victim to a cool, shaded area. Don't leave the person alone. Lay the victim on his or her back. Move any nearby objects away from the person if symptoms include seizures or fits. If symptoms include nausea or upset stomach, lay the victim on his or her side.
- Loosen and remove any heavy clothing.
- Have the person drink cool water (about a cup every 15 minutes) if alert enough to drink something, unless sick to the stomach.
- Cool the person's body by fanning and spraying with a cool mist of water or wiping the victim with a wet cloth or covering him or her with a wet sheet.
- Place ice packs under the armpits and groin area.

How can you protect yourself and your coworkers?

- Learn the signs and symptoms of heat-induced illnesses and how to respond.
- Train your workforce about heat-induced illnesses.
- Perform the heaviest work during the coolest part of the day.
- Build up tolerance to the heat and the work activity slowly. This usually takes about 2 weeks.
- Use the buddy system, with people working in pairs.
- Drink plenty of cool water, about a cup every 15 to 20 minutes.
- Wear light, loose-fitting, breathable clothing, such as cotton.
- Take frequent, short breaks in cool, shaded areas to allow the body to cool down.
- Avoid eating large meals before working in hot environments.
- Avoid alcohol or beverages with caffeine. These make the body lose water and increase the risk for heat illnesses.

What factors put you at increased risk?

- Taking certain medications. Check with your health-care provider or pharmacist to see if any medicines you are taking affect you when working in hot environments.
- Having a previous heat-induced illness.
- Wearing personal protective equipment such as a respirator or protective suit.

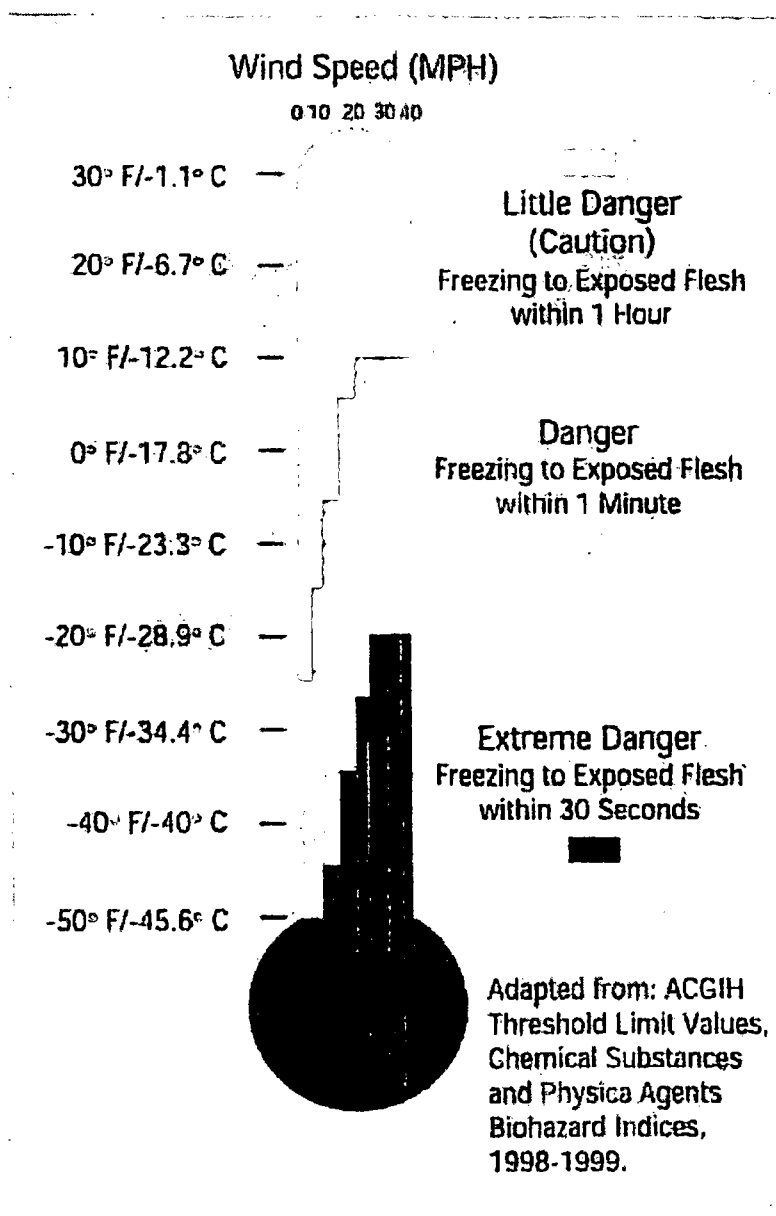


THE COLD STRESS EQUATION

LOW TEMPERATURE + WIND SPEED + WETNESS = INJURIES & ILLNESS

When the body is unable to warm itself, serious cold-related illnesses and injuries may occur, and permanent tissue damage and death may result.

Hypothermia can occur when *land temperatures* are **above** freezing or *water temperatures* are below 98.6°F/ 37°C. Cold-related illnesses can slowly overcome a person who has been chilled by low temperatures, brisk winds, or wet clothing.



FROST BITE

What Happens to the Body:

FREEZING IN DEEP LAYERS OF SKIN AND TISSUE; PALE, WAXY-WHITE SKIN COLOR; SKIN BECOMES HARD and NUMB; USUALLY AFFECTS THE FINGERS, HANDS, TOES, FEET, EARS, and NOSE.

What Should Be Done: (land temperatures)

- Move the person to a warm dry area. Don't leave the person alone.
- Remove any wet or tight clothing that may cut off blood flow to the affected area.
- **DO NOT** rub the affected area, because rubbing causes damage to the skin and tissue.
- **Gently** place the affected area in a warm (105°F) water bath and monitor the water temperature to **slowly** warm the tissue. Don't pour warm water directly on the affected area because it will warm the tissue too fast causing tissue damage. Warming takes about 25-40 minutes.
- After the affected area has been warmed, it may become puffy and blister. The affected area may have a burning feeling or numbness. When normal feeling, movement, and skin color have returned, the affected area should be dried and wrapped to keep it warm. **NOTE:** If there is a chance the affected area may get cold again, do not warm the skin. If the skin is warmed and then becomes cold again, it will cause severe tissue damage.
- Seek medical attention as soon as possible.

HYPOTHERMIA - (Medical Emergency)

What Happens to the Body:

NORMAL BODY TEMPERATURE (98.6° F/37°C) DROPS TO OR BELOW 95°F (35°C); FATIGUE OR DROWSINESS; UNCONTROLLED SHIVERING; COOL BLUISH SKIN; SLURRED SPEECH; CLUMSY MOVEMENTS; IRRITABLE, IRRATIONAL OR CONFUSED BEHAVIOR.

What Should Be Done: (land temperatures)

- Call for emergency help (i.e., Ambulance or Call 911).
- Move the person to a warm, dry area. Don't leave the person alone. Remove any wet clothing and replace with warm, dry clothing or wrap the person in blankets.
- Have the person drink warm, sweet drinks (sugar water or sports-type drinks) if they are alert. **Avoid drinks with caffeine** (coffee, tea, or hot chocolate) or alcohol.
- Have the person move their arms and legs to create muscle heat. If they are unable to do this, place warm bottles or hot packs in the arm pits, groin, neck, and head areas. **DO NOT** rub the person's body or place them in warm water bath. This may stop their heart.

What Should Be Done: (water temperatures)

- Call for emergency help (Ambulance or Call 911). Body heat is lost up to 25 times faster in water.
- **DO NOT** remove any clothing. Button, buckle, zip, and tighten any collars, cuffs, shoes, and hoods because the layer of trapped water closest to the body provides a layer of insulation that slows the loss of heat. Keep the head out of the water and put on a hat or hood.
- Get out of the water as quickly as possible or climb on anything floating. **DO NOT** attempt to swim unless a floating object or another person can be reached because swimming or other physical activity uses the body's heat and reduces survival time by about 50 percent.
- If getting out of the water is not possible, wait quietly and conserve body heat by folding arms across the chest, keeping thighs together, bending knees, and crossing ankles. If another person is in the water, huddle together with chests held closely.

How to Protect Workers

- Recognize the environmental and workplace conditions that lead to potential cold-induced illnesses and injuries.
- Learn the signs and symptoms of cold-induced illnesses/injuries and what to do to help the worker.
- Train the workforce about cold-induced illnesses and injuries.
- Select proper clothing for cold, wet, and windy conditions. Layer clothing to adjust to changing environmental temperatures. Wear a hat and gloves, in addition to underwear that will keep water away from the skin (polypropylene).
- Take frequent short breaks in warm dry shelters to allow the body to warm up.
- Perform work during the warmest part of the day.
- Avoid exhaustion or fatigue because energy is needed to keep muscles warm.
- Use the buddy system (work in pairs).
- Drink warm, sweet beverages (sugar water, sports-type drinks). Avoid drinks with caffeine (coffee, tea, or hot chocolate) or alcohol.
- Eat warm, high-calorie foods like hot pasta dishes.

Workers Are at Increased Risk When...

- They have predisposing health conditions such as cardiovascular disease, diabetes, and hypertension.
- They take certain medication (check with your doctor, nurse, or pharmacy and ask if any medicines you are taking affect you while working in cold environments).
- They are in poor physical condition, have a poor diet, or are older.